GUI MACHINE
USER MANUAL

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1. Introducing GUI Machine

1.1. About the program

The program ***GUI Machine*** is designed for creating prototypes of desktop and web interfaces.

> *Graphical User Interface (GUI) is the space for human-computer interaction allowing the user interact with the computer with images rather than text commands.*

The program is designed for all specialists taking part in software development (programmers, analysts, GUI designers, managers). Prototypes created in GUI machine are characterized by high fidelity and interactivity. GUI Machine is an intuitive tool. No programming is necessary for the creation of prototypes.

The functionality of GUI Machine

GUI Machine comprises a large set of functions:

- Creation of interfaces for different types of applications:
  - ✔ desktop applications;
  - ✔ web applications;
  - ✔ mobile applications

- Creation of interactive graphical prototypes close to the original
- Interactive preview of prototypes, their parts and single objects
- Viewing prototypes with a free viewer without running the whole application
- Option for rapid interface redesign
- Rapid creation and structuring of screenshots
- Rapid editing of images used in projects
- Rollback of changes made
- Option for detailed customization for each object
- Creation of reusable templates
- Preview of interfaces in different operating systems styles

Key functions of GUI Machine

- Platforms supported:
  - ✔ **Windows;**
  - ✔ **MacOS;**
  - ✔ **Linux.**
- The application comprises a set of most widely components (ready-made interface elements) including **Vaadin** web components set.
- The application comprises special modules giving additional options for creating and editing prototypes
  - ✔ **Image Editor**
  - ✔ **Print Screen** — a screenshot making tool
  - ✔ **Pixel Grabber** — a special tool for defining display dots color in RGB format
- Interface languages: English and Russian

What platforms does GUI Machine support?

GUI Machine is a crossplatform application able to work on different operating systems:

- ✔ Windows;
- ✔ Linux;
- ✔ Mac OS.

1.2. How to use this manual

Each item in the table of contents contains a hyperlink to the corresponding page. The page can be opened by clicking its number. Most of the programs used for viewing documents have a function of key words search. (For further information please consult the manual of the viewer you use).

1.3. Support

Useful links

http://www.gui-machine.ru/ - GUI Machine official website (news, updates, technical support).
http://www.gui-machine.com/forum — GUI Machine Forum where you can ask any questions concerning work in GUI Machine and express your opinion about the program.

Contacts

You can contact us and ask all questions concerning the work in GUI Machine on our forum http://www.gui-machine.com/forum or by e-mail . gui@alee.com

2. Installation Instructions

2.1. System requirements

The system requirements for the work with the application are indicated in *Table 1*.

Table 1. System requirements

Operating system*	***CPU***	***Memory***	***HDD***
Windows XP, 2000, 2003, Vista, 7	1.5gHz/2+ gHz	512 M / 1024+ M	200+ Mb
Mac OS X 10.4 (Power PC or Intel)	1.5gHz/2+ gHz	512 M / 1024+ M	200+ Mb
Linux 2.2.6+, Solaris 10	1.5gHz/2+ gHz	512 M / 1024+ M	200+ Mb

* GUI Machine can work on any operating system supporting ***JDK 6 Update 20*** and higher.

Notes:

- Parameters marked by «/» are interpreted as the minimal and the maximal ones.
- The parameter indicated without «/» is interpreted as the minimal one.

Attention!
Be aware that increasing the complexity of the project leads to the severization of the system requirements.

2.2. Installation

Execute the setup file Alee_GUI_Machine_xxx_1.5.4zzz, where xxx is for the operating system (Unix, Linux or MacOS) and zzz is the setup file extension.

You should then see the following window appear:

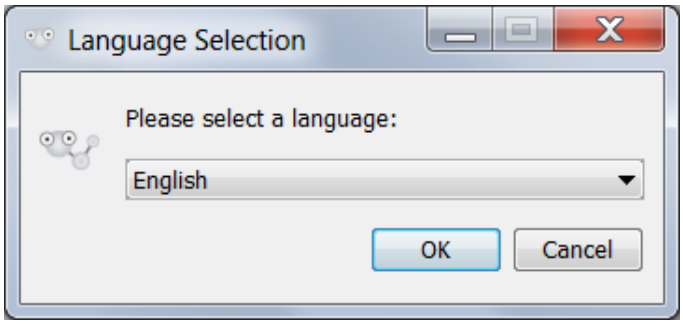


Figure 1. Language selection

Select the language and press ***OK***. Then you should see the welcome screen of the setup wizard:

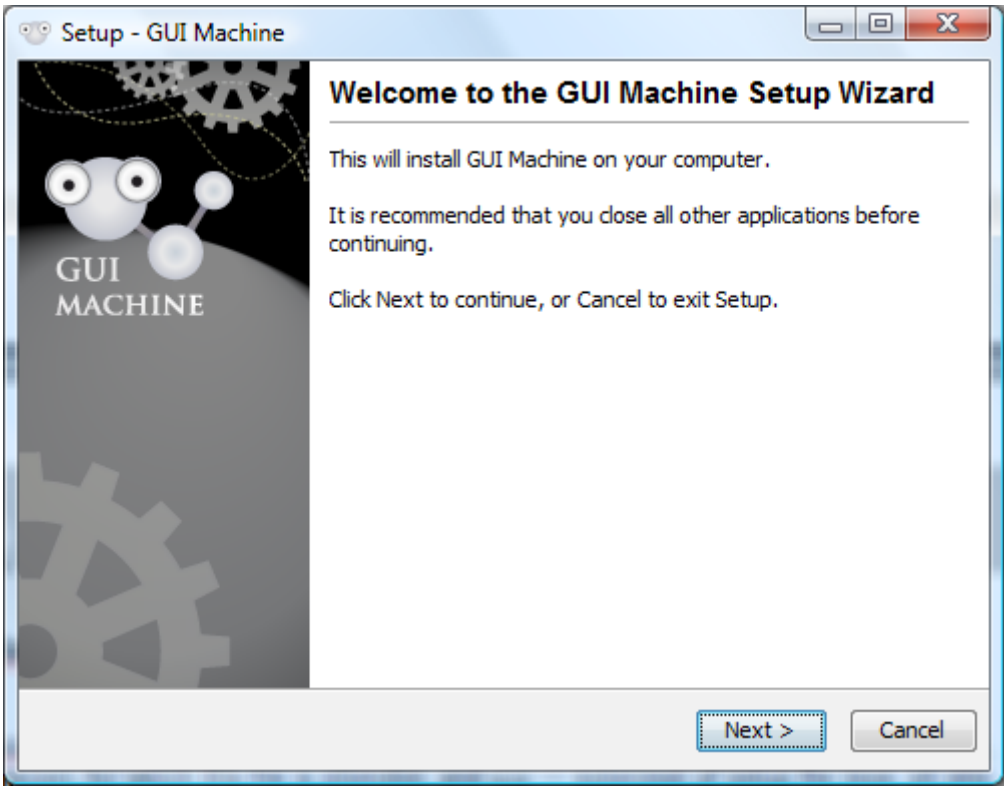


Figure 2. GUI Machine Setup Wizard

Press **Next** to continue**.**

The next screen will allow you to select the location where GUI Machine will be installed. The default location is the following

X:\Program files\AleeGuiMachine\, where X is for the system drive letter

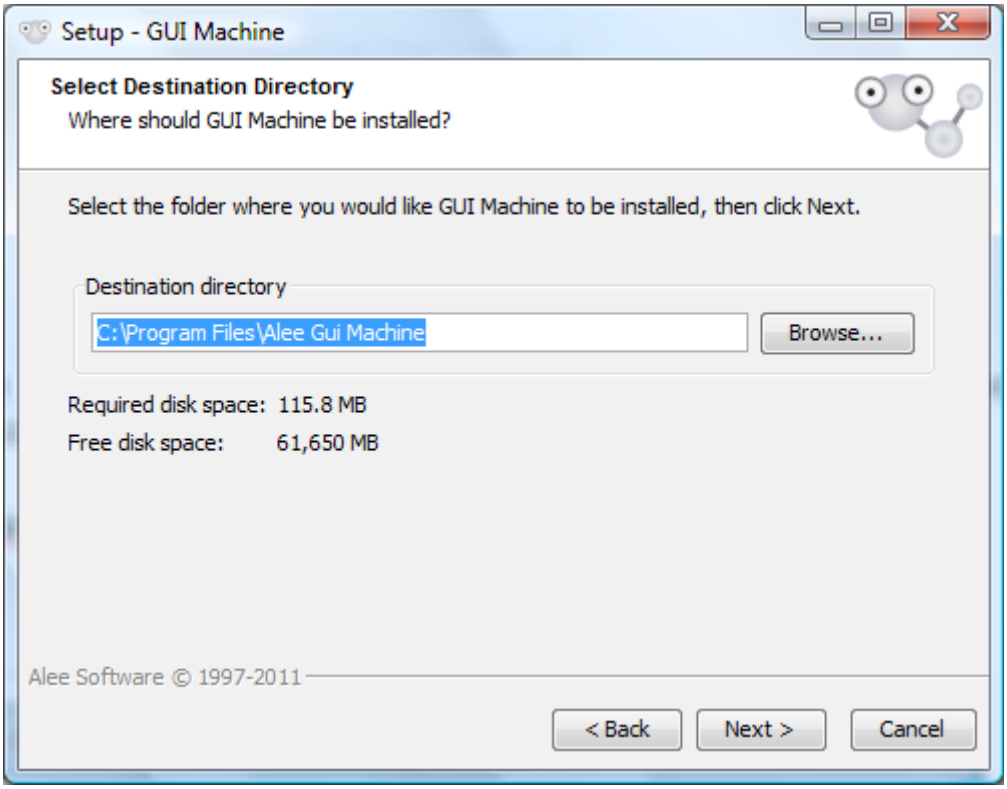


Figure 3. Destination directory selection

Enter the location in ***Destination directory*** field or press ***Browse...*** button. The following screen should then appear:

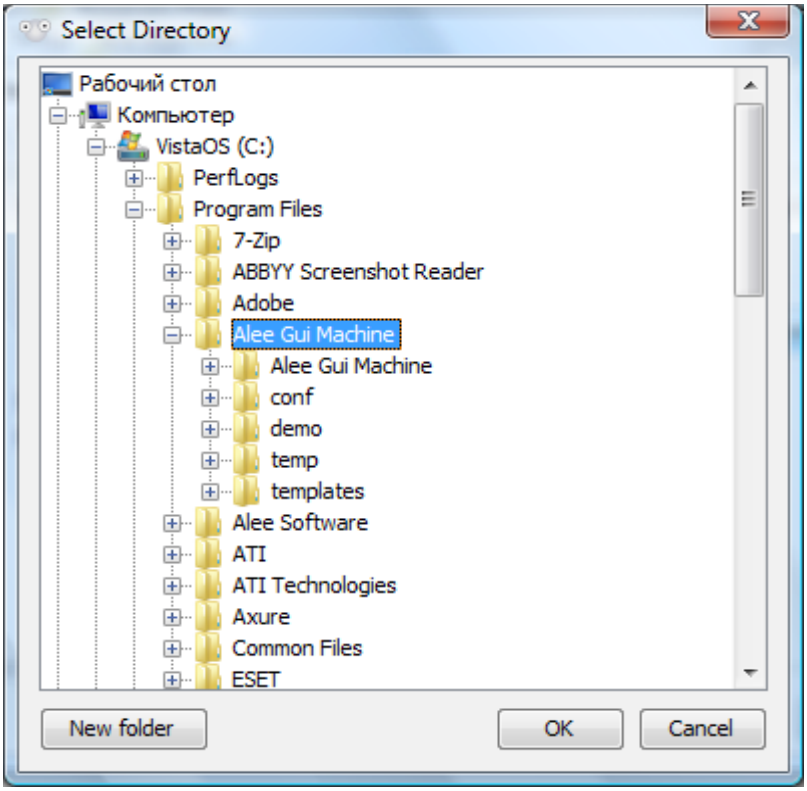


Figure 4. Manual directory selection

Select the location and press ***OK.***
Press ***Next*** to continue.
The next window will allow you to create file associations.
You can choose file extensions by selecting check boxes or by clicking buttons ***Select all*** and ***Select none***.

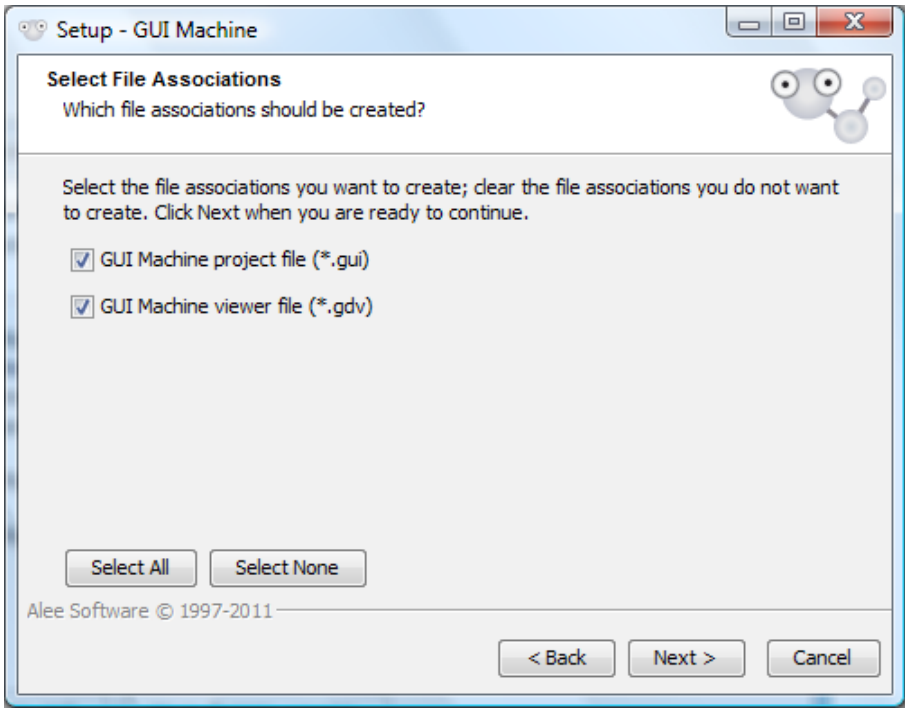


Figure 5. Creating file associations

After creating associations files will be opened by double-clicking. Press ***Next*** to continue. The next window will allow you to select the location for GUI Machine shortcuts:

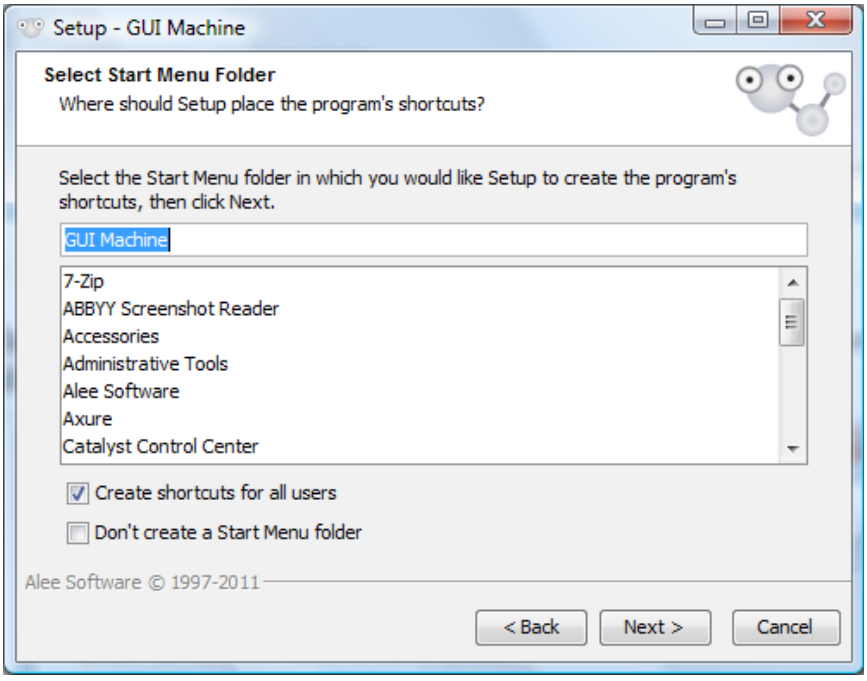


Figure 6. Selection of the location for shortcuts

Select the destination folder from the given list or type the name of the folder in the text field.
You can also select the checkbox ***Do not create a Start menu folder***. Press ***Next*** to complete the installation.

The next window will display the progress of GUI Machine installation:

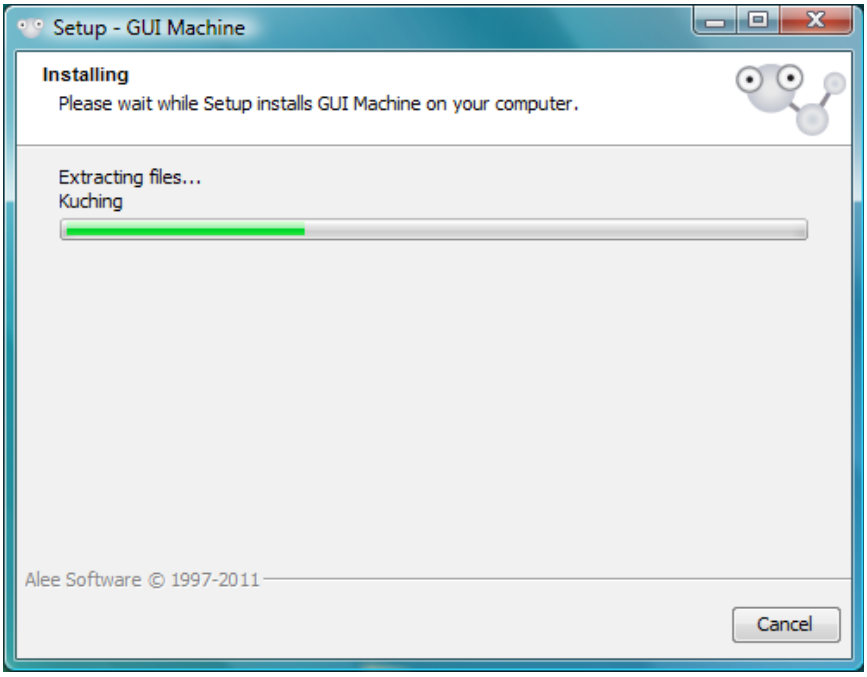


Figure 7. GUI Machine installation

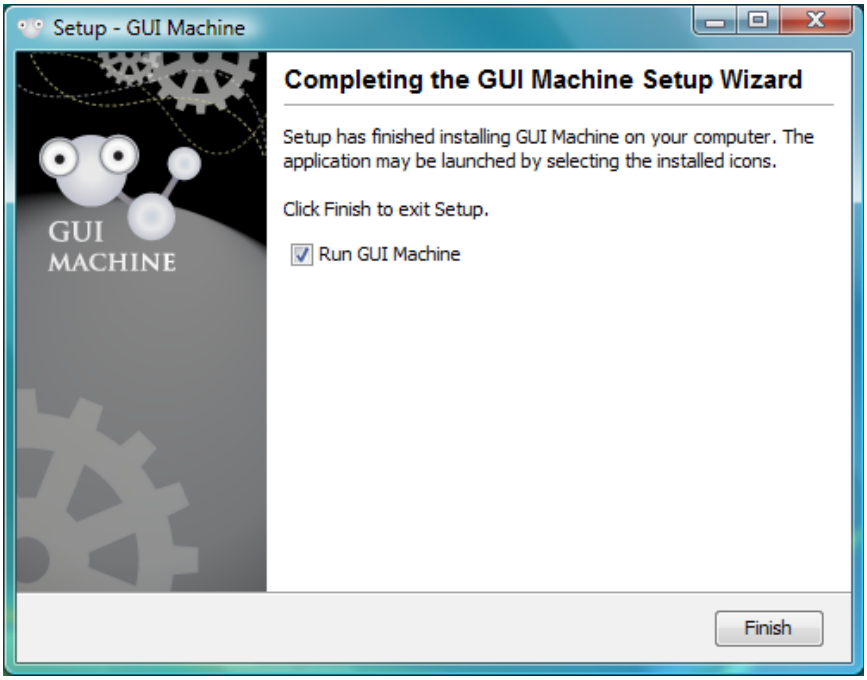


Figure 8. Installation completed

When the installation is completed, the dialog box shown on figure 8 will appear. Press ***Finish*** to quit the setup wizard. Select the checkbox ***Run GUI Machine*** to launch the application right after pressing ***Finish***.

2.3. Licensing

2.3.1. Online licensing

If your version of GUI Machine is not registered, after the fist launch of the program the dialog of activation should appear on the screen (Figure 9). The program will offer you to visit the official site of GUI Machine in order to buy the license or to enter the license key:

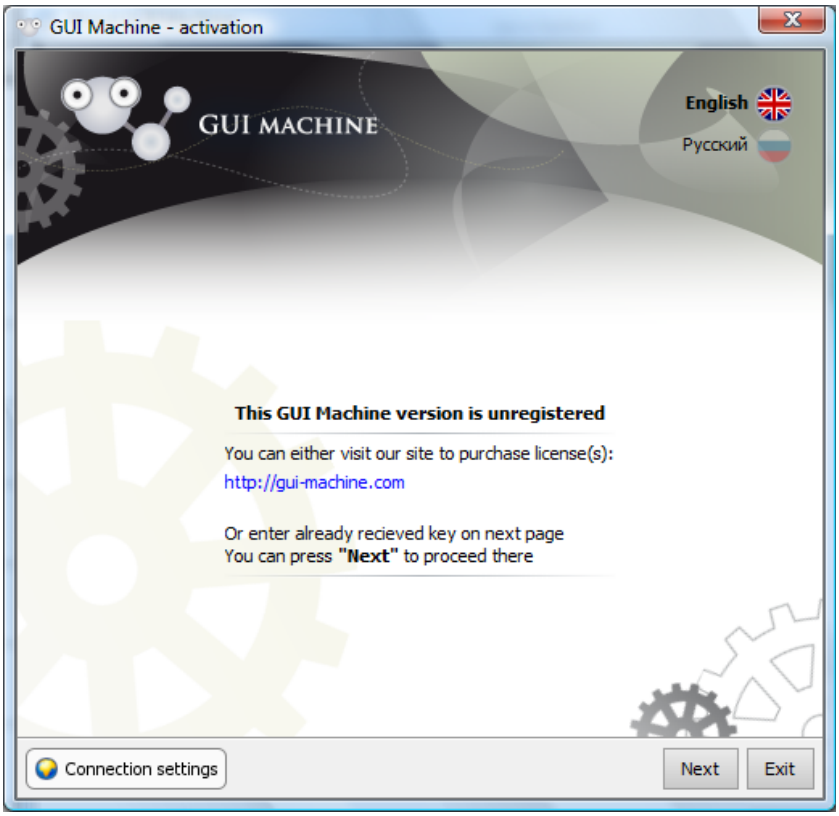


Figure 9. The activation of GUI Machine

Click ***Next*** to enter the key. The following window should appear on the screen:

Figure 10. Entering the license key

Enter the key in the text field and click ***Next***.
NB : You can copy the key and enter it into the field by pressing ***Ctrl+V***.
If the key you entered is incorrect, the following window should appear:

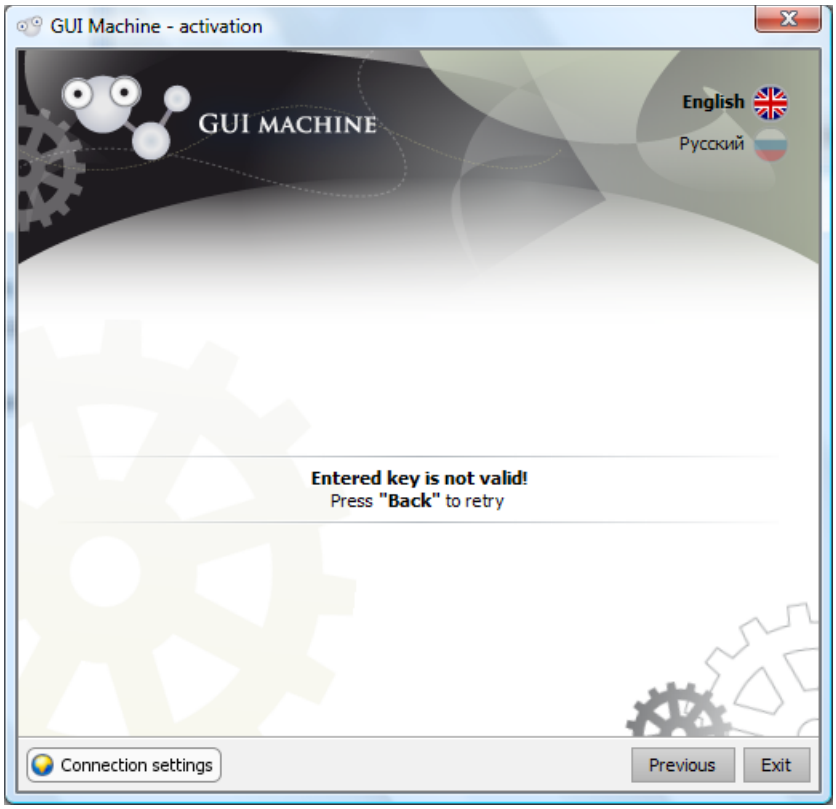


Figure 11. The information about the incorrect license key

Press ***Previous*** to retry. Enter the key and press ***Next***. If the key is correct, the license will be activated and the you will see the following window appear:

Figure 12. Information about the license

Press ***Next***. The window containing the text of the license agreement should appear on the screen. Read the license; if you accept the terms, select the checkbox ***I agree*** and press ***Next***:

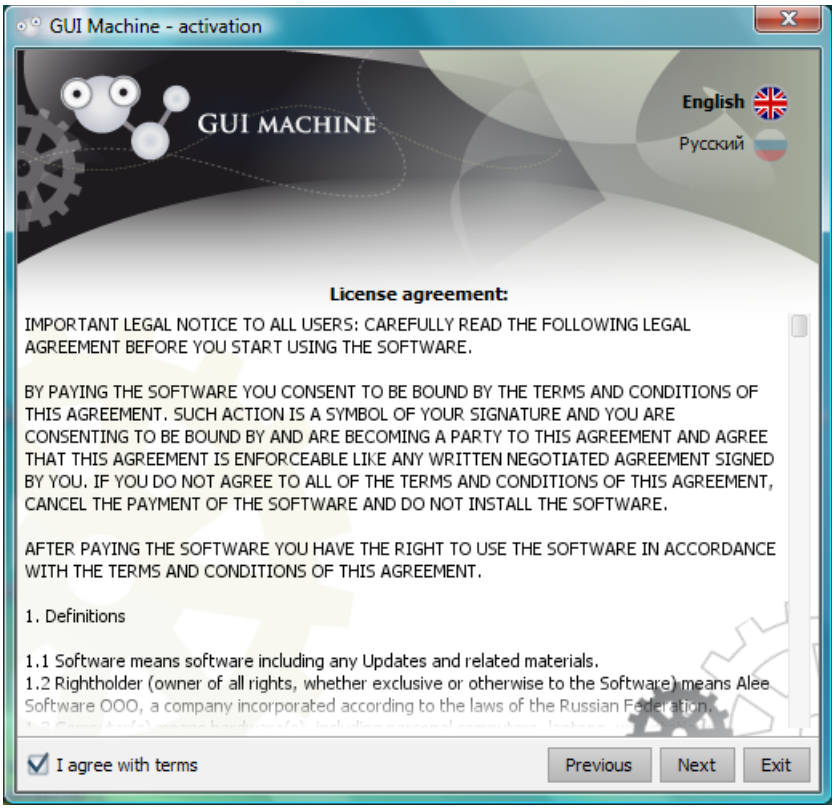


Figure 13. License agreement

Then you should see the following window appear:

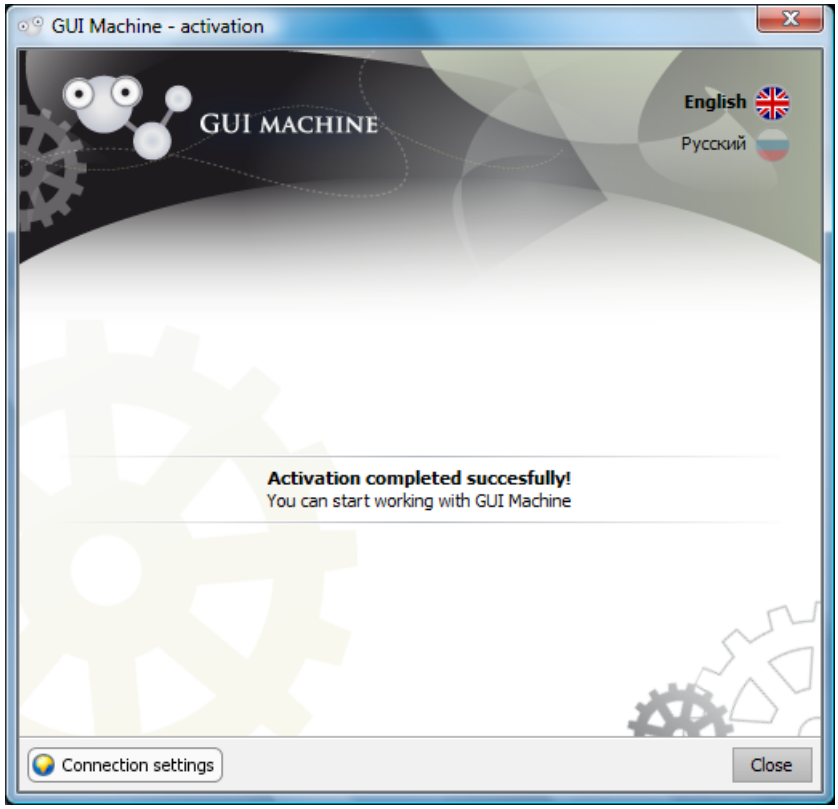


Figure 14. Activation completed

2.3.2. Activating the license without Internet connection

If your computer is not connected to the Internet or your Internet connection is limited, the program will offer you to activate the license manually:

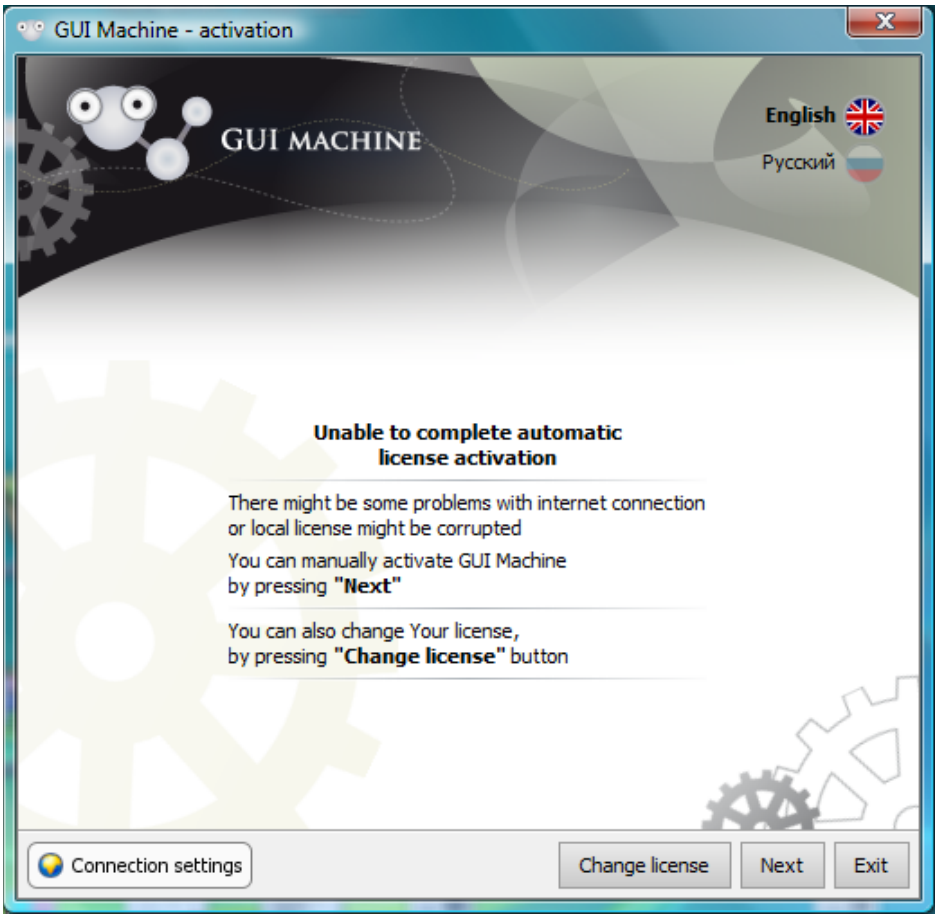


Figure 15. The dialog box offering to activate the license manually

Press ***Next***. The window with the activation code should appear on the screen:

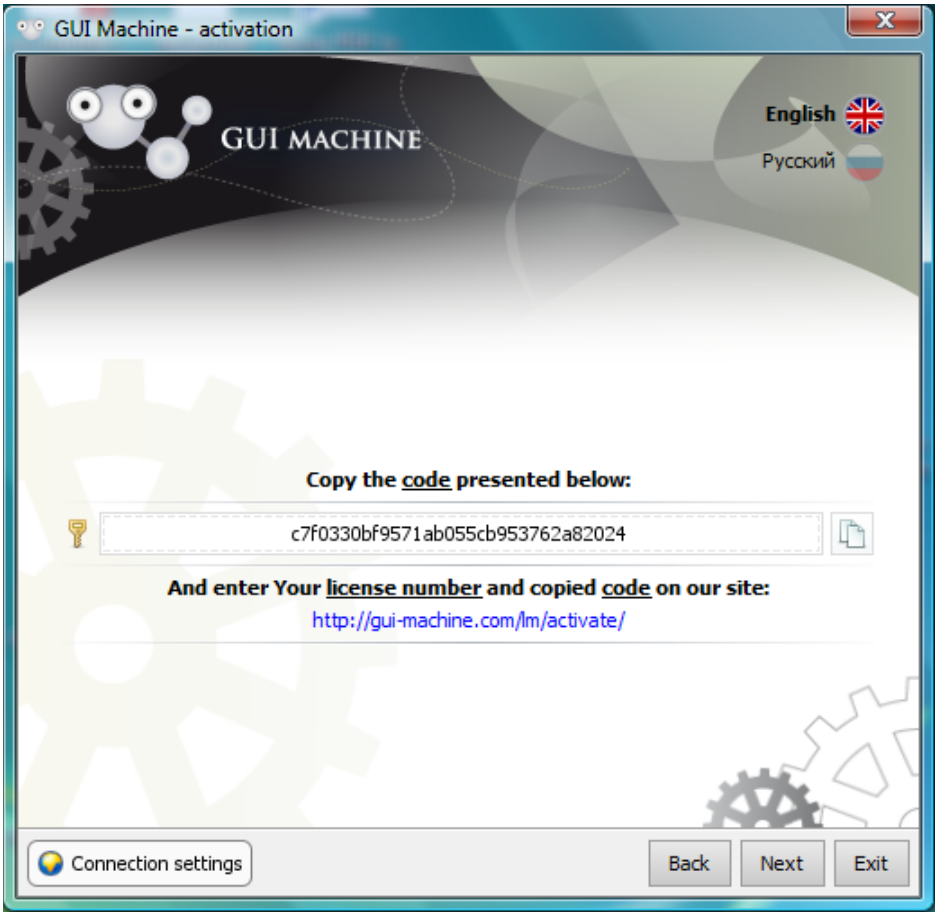


Figure 16. Activation code

Copy the code and paste it into a text file. Visit the site http://www.gui-machine.com/lm/activate/ from any computer connected to the Internet and press ***Activate.*** Enter the serial number in the field *The number of your license*. In the field "Activation code" enter the key your received. Press ***Activate***. Then you will get the validation code. Enter the code into the dialog box. Your license will be activated.

2.3.3. Activating and deactivating the license

After the installation of the program you can read the information about the license. You can deactivate the license and activate it again. Select the item **Help** - > **About** program in the main menu. The window containing the information about the program will appear.
To validate the license press ***Validation***. To deactivate the license press ***Deactivate.***

Figure 17. License information

2.4. Launch

To start GUI Machine you need to go to the installation folder or any shortcut you may have chosen to create and double-click on the icon. After that, you will see the startup image with loading progress bars.

Then the following window should appear :

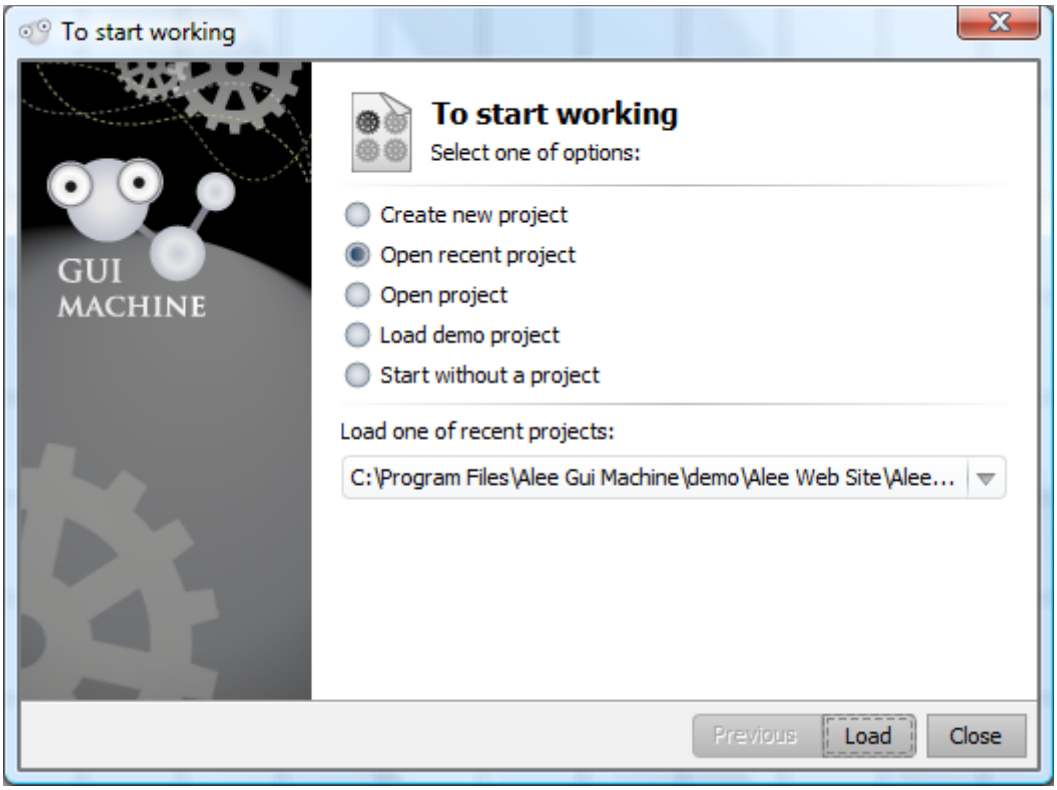


Figure 18. Starting work in GUI Machine

This window will allow you to select one of the following options:

- ✔ *Create a new project* ;
- ✔ *Open a recent project;*
- ✔ *Open project*;
- ✔ *Open a demo project* ;
- ✔ *Start without a project* .

Select the option and press ***Next*.**

Creating a new project

To create a new project select ***Create new project*** and press ***Next***. Type the name of the project in the field ***Project name*** (by default the project is given the name *GUI Machine Project*). Then select the location for saving the project.

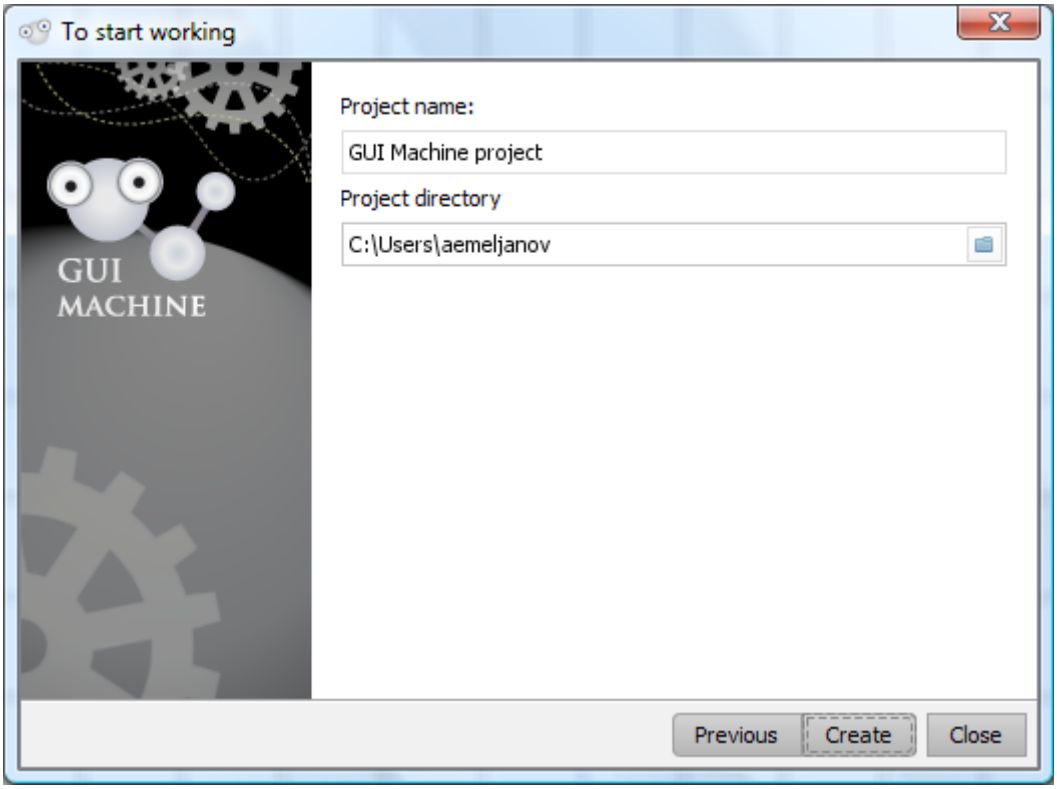


Figure 19. Creating a new project

By default all projects are saved in C:\Documents and Settings\<User Name>\GUI Machine Project\. To change the location press the button <...>; then the standard window for selecting the location should appear.
If you need to create a separate folder within the selected directory, select the check box ***Select subdirectory.***
Press ***Create*** to create the new project.

Open recent project

To open the last project you worked with select ***Open recent project***. The last opened project will be loaded.

Loading a project

To load one of previously created projects select ***Load project***. The standard file selection menu should appear:

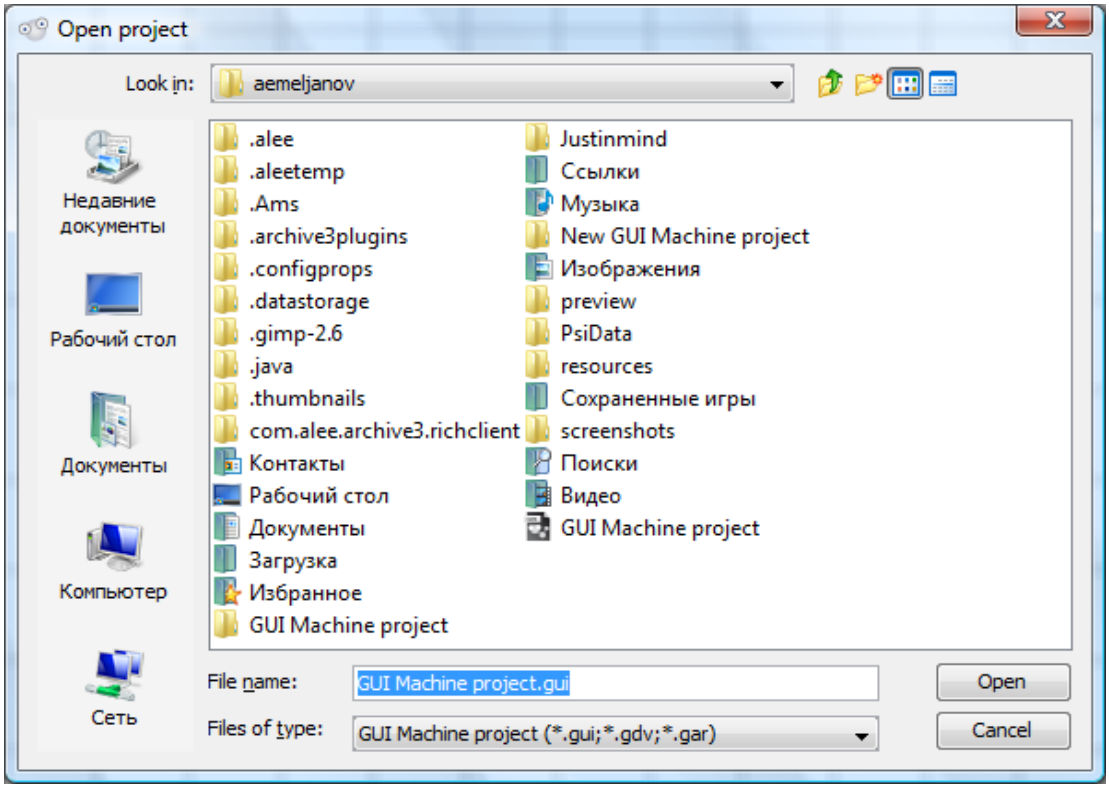


Figure 20. Opening a project

Select the project file and press ***Open***.

Projects can also be loaded by dragging them to the edit area.

Loadig a demo project

After selecting this option you should see the following menu appear:

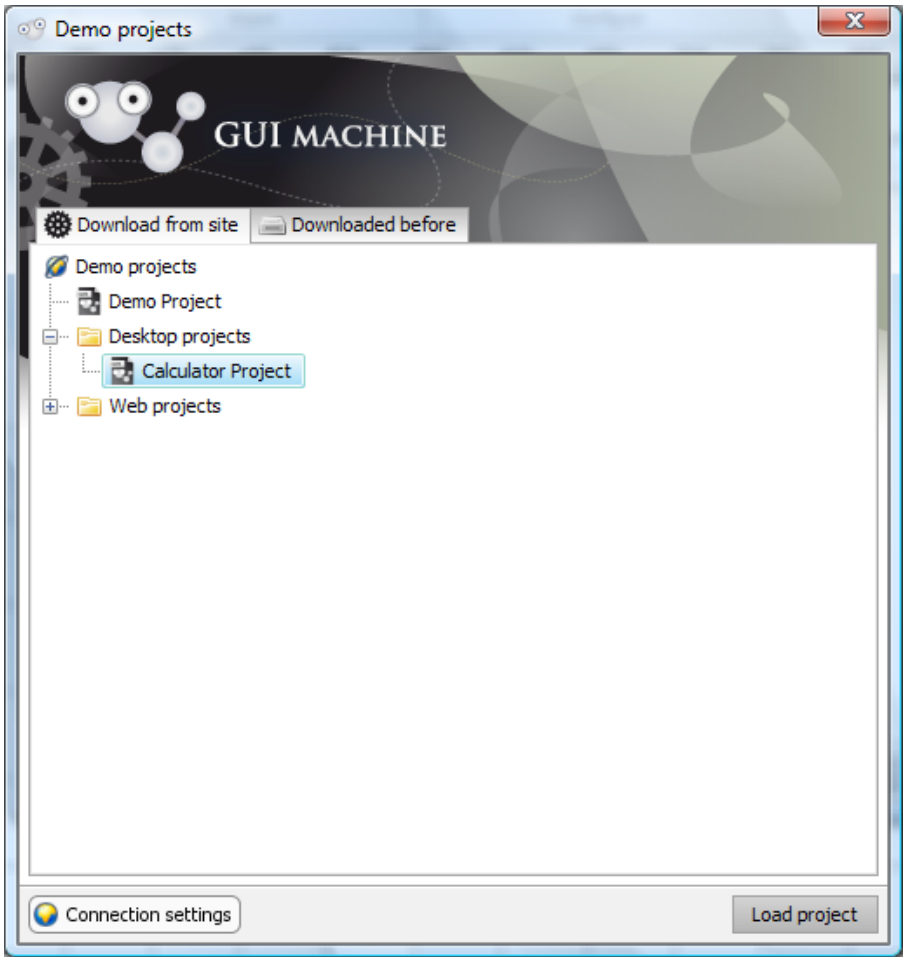


Figure 21. Selecting a demo project to be loaded

Select the necessary project and press ***Load project***. Projects can also be opened by double-clicking.

Start without a project

If you do not wish to create a new project or wish to start working with projects later, select the item ***Start without a project***. The new file will not be created. After selecting this option the window with the tip of the day should appear. The tip of the day is a brief instruction or a brief description of some program functions.

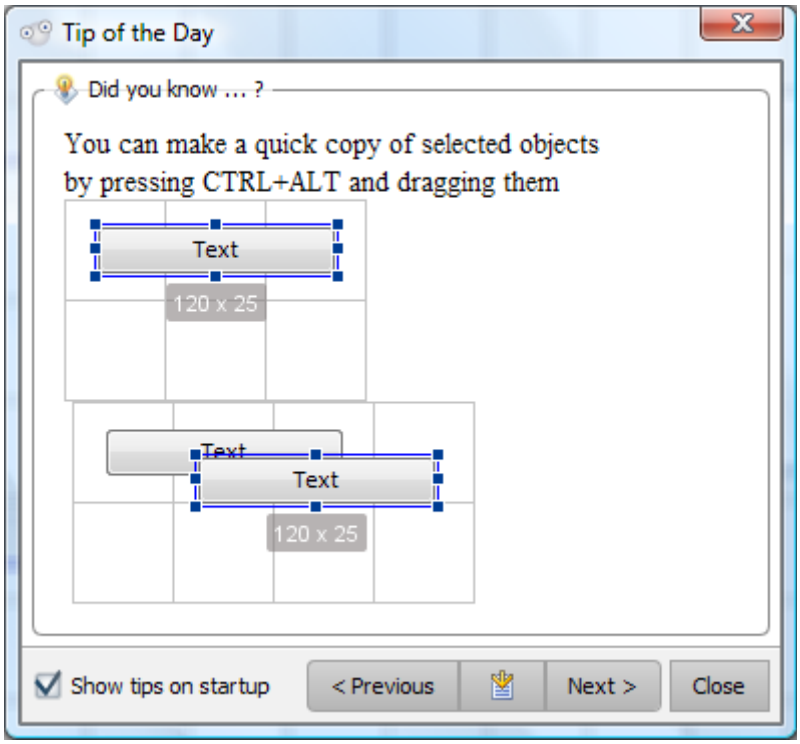


Figure 22. Tip of the day

Press ***Previous*** or ***Next*** to see other tips. If you do not want to see the tip of the day, deselect the checkbox ***Show tips on startup***.

2.5. Uninstallation

To begin the uninstallation press the ***Start*** button. Select in the menu **All programs→ GUI Machine → GUI Machine Uninstaller.**

If you did not create shortcuts, execute the file **Uninstall**.

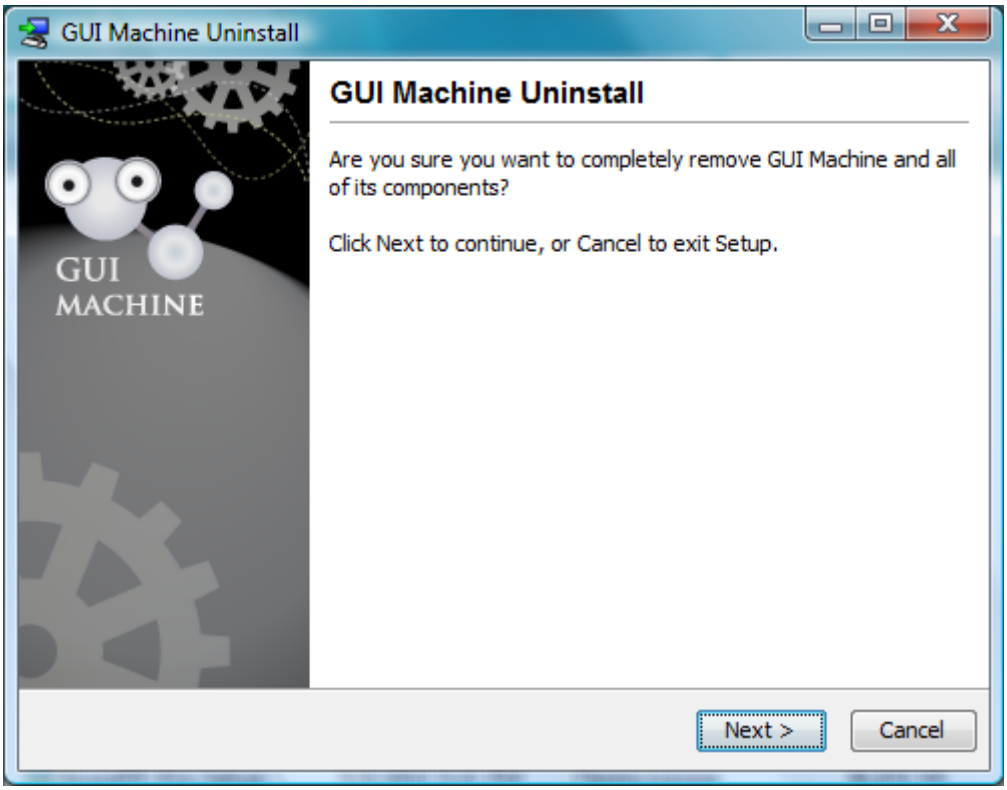


Figure 23. Launching the uninstall wizard

The window of the uninstall wizard should appear on the screen. Press ***Next*** to continue. If you do not want to uninstall the program, press ***Cancel***.

When the uninstall is finish, you should see the following window appear:

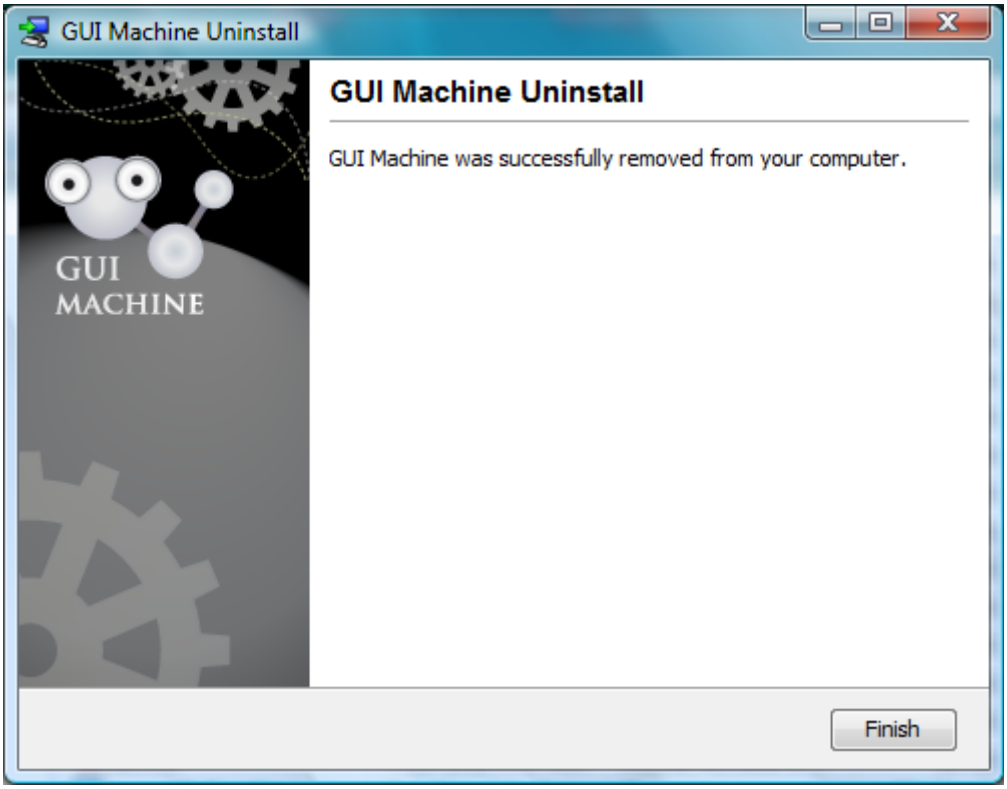


Figure 24. Uninstall completed

Press ***OK***. If the files of the program are not deleted, delete them manually.

3. Workspace

3.1. General information about GUI Machine workspace

GUI Machine workspace comprises the following elements:

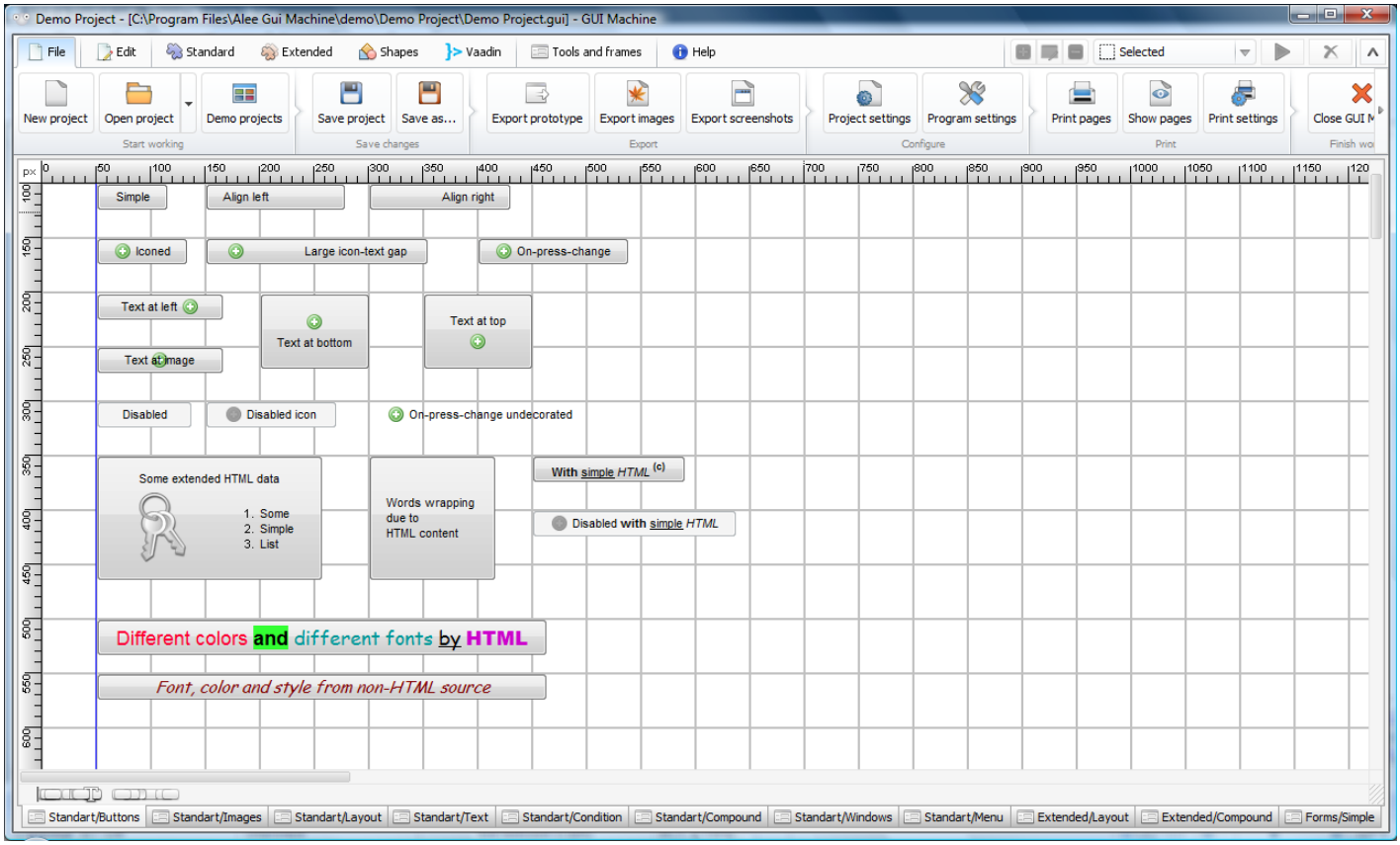


Figure 25. The workspace of GUI Machine

- ***The Main Menu*** is located at the top of the application and includes eight root level items
- ***The Edit Area*** displays the current project
- The ***Layers*** panel allows to structure the objects used in the project
- The ***Components*** palette displays components which can be used in work
- The panel ***Object Properties*** displays the properties of a selected object (or that of a selected group of objects on Edit Area).
- The ***Templates*** panel shows templates used in the current project
- The ***History*** panel contains records concerning all manipulations made during the work

3.2. Workspace Customization

It is possible to move the tools, to change their size and close them if necessary with the help of the mouse.

3.2.1. Hide/show tools

To enlarge the space on the edit area the tools can be hidden.
The tools can be shown/hidden in the two following ways:

- by selecting the item **Tools and Frames→ Hide all frames** in the main menu;
- by pressing ***Ctrl+Alt+H***;
- each tool can also be hidden by pressing the button ***Toggle auto-hide***.

The tabs of the hidden tools are displayed on the workspace borders. They are displayed when hovered. The tools become hidden again when moving away the cursor. They can also be hidden by pressing the button at the top of the panel.
To return the panel to the previous state press the button .

3.2.2. The Context Menu of the Panels

To activate the context menu move the cursor to the header of the panel and press the right mouse button(figure 26):

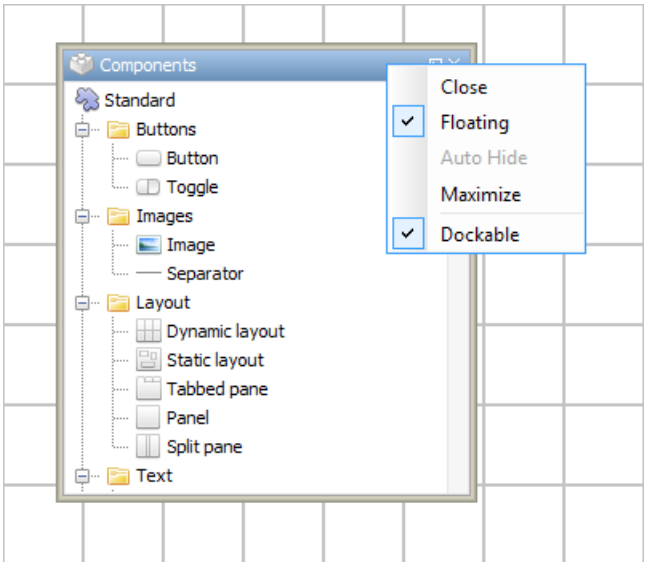


Figure 26. The context menu for panels

Select ***Close*** to close the panel. If you want to relocate the panel, select ***Floating***. Then the panel can be moved on the workspace. To hide the panel select ***Toggle auto-hide***. The tab of the panel will be displayed on the right border of the workspace. If you want to expand the panel, select ***Maximize***.

Jointing and disjointing panels

A **joint** is a set of panels displayed together (usually the panels are jointed vertically). Panels can be jointed and disjointed by dragging to the area.

- To fix the panel drag it to the joint and place it above or below or between other panels.
- To fix a group of panels drag it to the joint by the header.
- To delete a panel drag it out of the joint or double-click on the header.

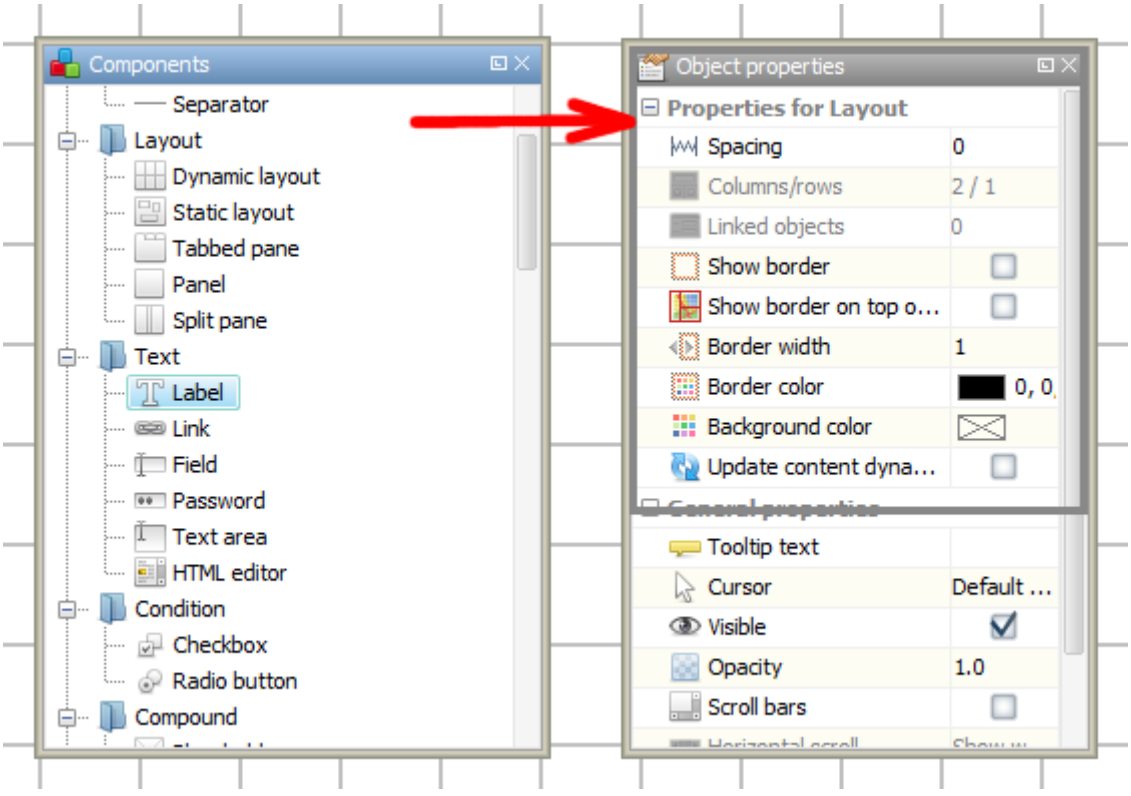


Figure 27. Jointing panels

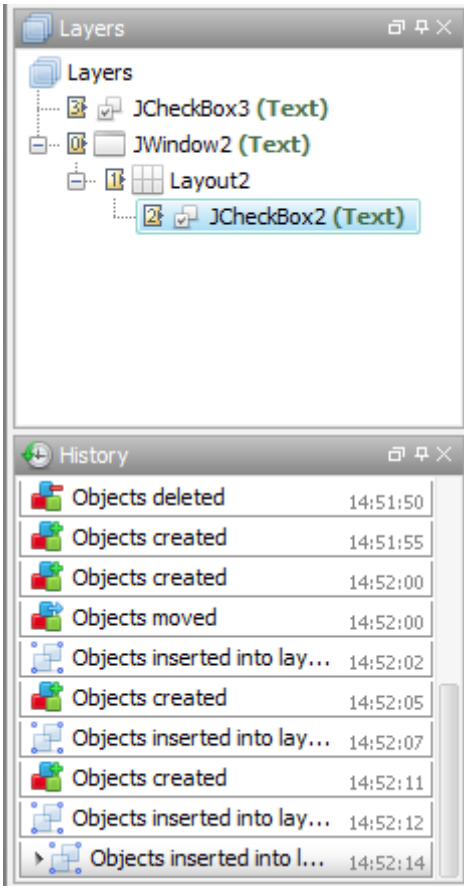


Figure 28. Jointed panels

NB: If you do not want to join the panels please clear flag ***Joint panels*** in the menu shown on figure 32)

Moving panels

When moving panels the zones where they can be placed are highlighted with gray.
To fix the panel drag it to the gray zone. When dragged out of the zone the panel becomes floating.

- To move the panel drag it by the header.
- To move a group of panels or a stack of floating panels, drag it by the header.

Adding and removing joints and panels

After removing all panels joints disappear. New joints are created by moving panels to drag zones located near the existing joints or tho the border of the workspace.

- To remove a panel click the button Close (the symbol x in the top-right corner) or remove (click) the icon of the panel in the menu **Tools and Frames → Frames Settings.**
- To add the panel click its icon in the menu **Tools and Frames → Frames Settings.**

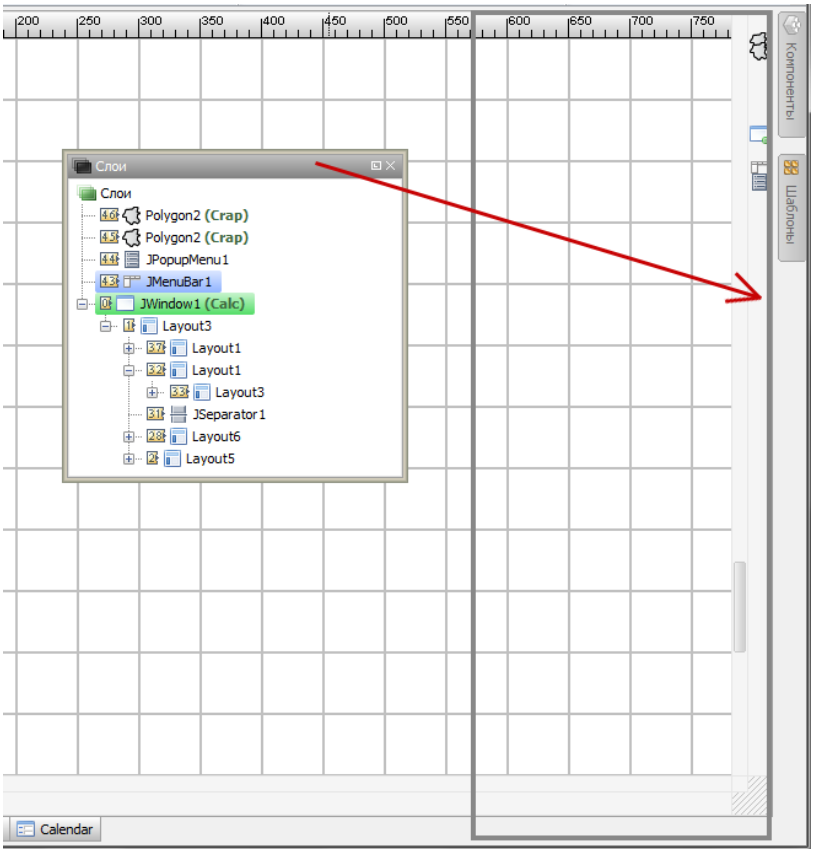


Figure 29. Moving panels

Panel groups manipulation

- To add the panel to the group drag the tab of this panel to the selected drag area in the upper part of the group.
- To change the order of panels in the group drag the panel by the tab to the new place inside the group.
- To remove a panel from the group and make it floating drag it by the tab out of the group.
- To bring a panel to front click it by the tab.
- To drag the whole group drag it by the header located above the tabs.

Floating panels

A panel dragged out of the joint but not placed in the drag area will become floating. Floating panels can be placed in any point of the workspace. All panels can become floating after selecting the icon of the panel

in the menu **Tools and Frames → Frames Settings.** Floating panels or panel groups can be united; then they will be moved as a unit when dragging the upper panel by the header. Panels being part of a joint cannot be put into stacks or relocated in such a manner.

Creating a stack of floating panels

- To create a stack of floating panels move a panel by the tab to the drag area located in the lower part of the other panel
- To change the order of panels in the stack move the panel by the header up or down.
  ***NB**. The tab should be placed above the narrow drag area between the panels, but not above the wide drag area at the panel header.*
- To remove the panel or a panel group from the stack and make it floating, drag it out of the stack by the tab.

Resizing and collapsing panels

- To resize the panel move one of its borders or the resizing symbol located in the right lower corner.
- To change the width of all panels in the joint drag the capture area located in the upper left part of the joint.
- To collapse the panel, a group or a stack of panels click the Collapse button on the header panel.

3.3. The Main Menu

The main menu panel is shown on the figure below:

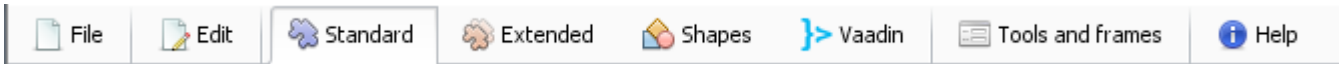


Figure 30. The main menu

The main menu includes 8 root items:

1. *File;*
2. *Edit;*
3. *Standard;*
4. *Extended;*
5. *Shapes;*
6. *Vaadin:*
7. *Tools and Frames;*
8. *Help.*

3.3.1. The *File* menu

The **File** menu is shown on the figure below:

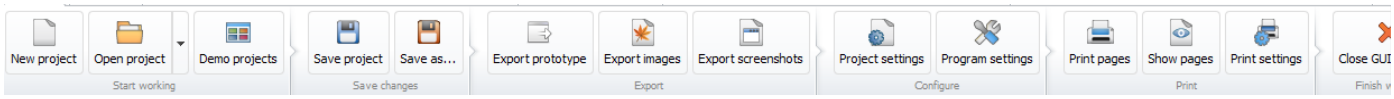


Figure 31. The *File* menu

It comprises the following items:

1. *New project*;
2. *Open project*;
3. *Demo projects*;
4. *Save project*;
5. *Save as.....;*
6. *Export prototype;*
7. *Export images;*
8. *Export screenshots;*
9. *Project settings;*

10. *Program settings;*
11. *Print pages;*
12. *Show pages;*
13. *Print settings;*
14. *Close GUI Machine*

3.3.2. The *Edit* menu

The ***Edit*** menu is shown on the following figure:

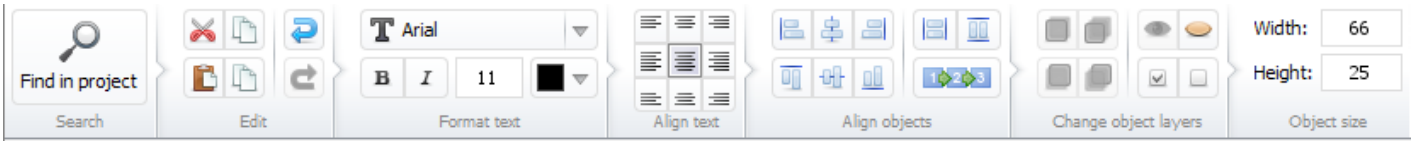


Figure 32. The *Edit* menu

This menu includes the following items:

1. *Find (Find in project);*
2. *Edit*:
- ✔ *New page;*
- ✔ *Rename page;*
- ✔ *Delete page*
- ✔ *Add object;*
- ✔ *Rename objects;*
- ✔ *Delete objects;*
- ✔ *Cut;*
- ✔ *Copy;*
- ✔ *Undo;*
- ✔ *Insert;*
- ✔ *Clone;*
- ✔ *Repeat.*

3. *Format text (type selection and settings);*
4. *Align text;*
5. *Align objects;*
6. *Change objects layers.*

3.3.2.1. Object Text Format

This tool is designed for formatting the text of an object or a group of objects. Select on the edit area the objects to format. Enter the necessary bold settings (bold type, size, style, color):

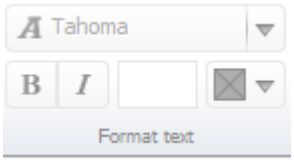


Figure 33. Bold settings

3.3.2.2. Text alignment

This function allows to align the text :

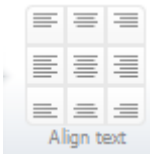


Figure 34. Text alignment

The following options for the text alignment can be selected:

✔ *Vertical alignment:*

- on top;
- in the center;
- at the bottom.

✔ *Horizontal alignment*:

- on the left;
- in the center;
- on the right.

NB: Not all objects contain text. The operations of changing bold, color and text alignment are not applicable to all objects containing text. The format functions are not applicable to all objects. For some objects they are not applicable to full extent,

If format functions for an object selected on the edit area are blocked, the set of formatting tools is also blocked:

Figure35. Text format blocked

3.3.2.3. The aligning of the objects

To align the objects select the item **Edit** → **Align objects** in the main menu.

	Horizontal alignment

These tools allow to align objects horizontally to the left, to the right or to the center. Select the objects and press click on the proper button.

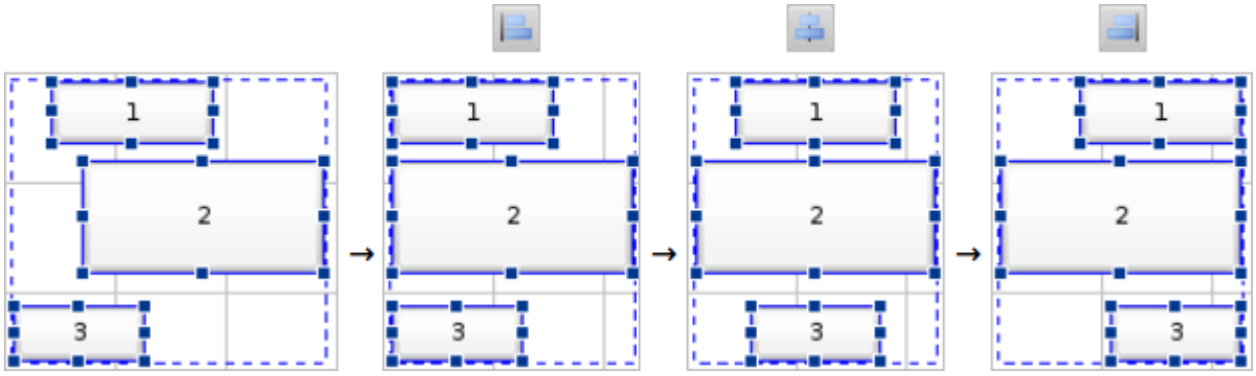


Figure 36. Horizontal alignment of objects

	Vertical alignment

These tools allow to align objects to the left, to the center and to the bottom. Select the objects and click on the proper button.

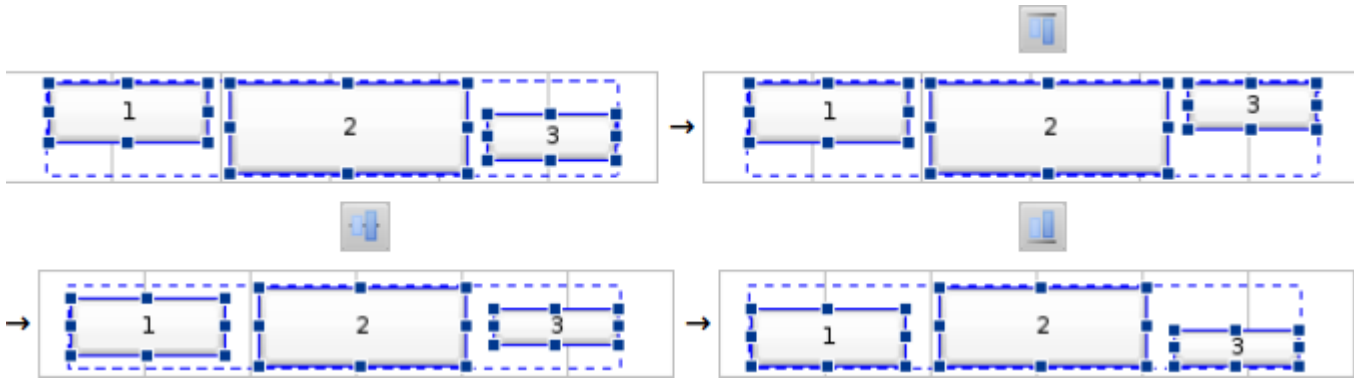


Figure 37. Vertical alignment of objects

	Matching width/heighth

Press the button to match the width of the selected objects. After pressing the button the dropdown list containing two options (*match to the object's width* and *match to the maximal width*) should appear on the screen.

The first option is to make the object as wide as the selected object:

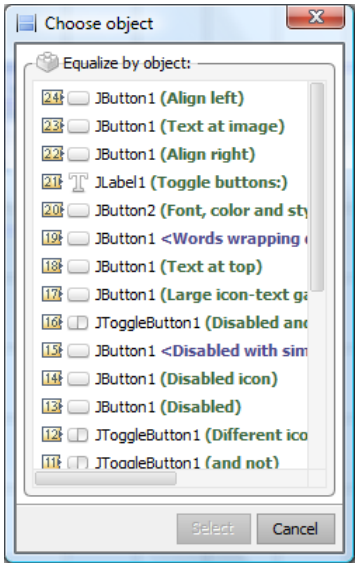


Figure 38. Selection of an object

The second option is to make all objects as wide as the object with the maximal width.

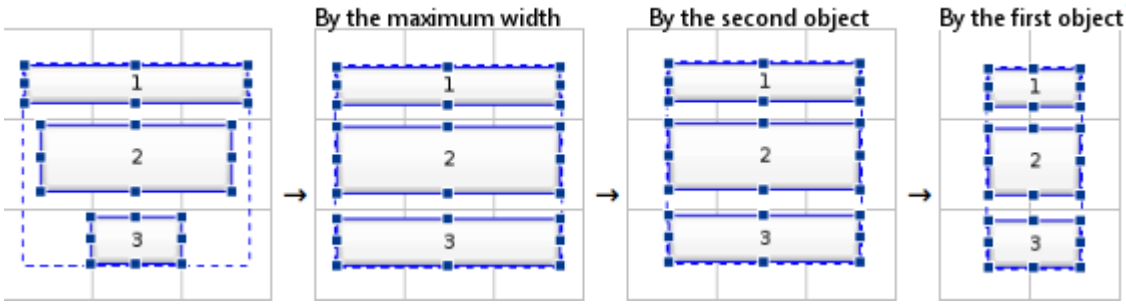


Figure 39. Matching the width of objects

The button allows to match the height of the selected objects.

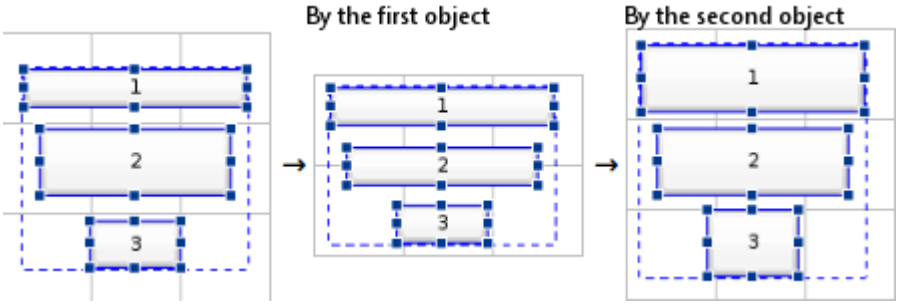


Figure 40. Matching the height of objects

	Placing objects one after another

You can rank the objects by clicking on this button. The following parameters can be set up for the placement of the objects:

- *Gap* — the distance between the objects in pixels;
- *Place:*
  - *Horizontally ;*
  - *Vertically;*
- *Objects order*

The objects are placed by dragging . The window with settings is shown on the figure below:

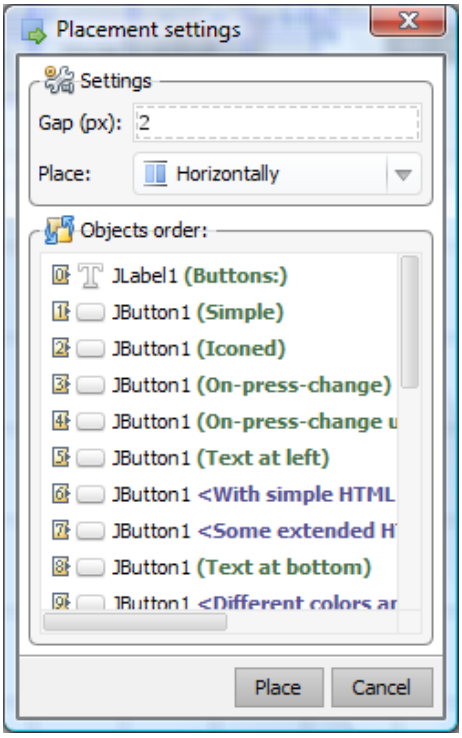


Figure 41. Placement settings

After pressing the Place button the objects will be ranked in accordance with the settings.

3.3.3. *Standard* Menu

The Standard menu is shown on the figure below:

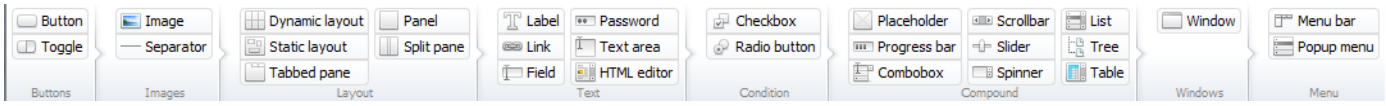


Figure 42. The *Standard* Menu

The **Standard** menu includes the following items:

1. *Buttons*
2. *Images*
3. *Layouts*
4. *Text objects*
5. *State objects (checkboxes and radiobuttons)*
6. *Compound*

7. *WIndows*
8. *Menu*

3.3.4. Extended menu

The **Extended** menu is shown on the figure below:

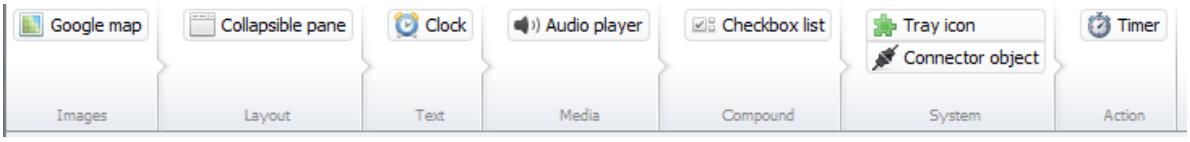


Figure 43. The Extended menu.

It consists of the following items:

1. *Google map ;*
2. *Collapsible panel ;*
3. *Clock;*
4. *Audioplayer ;*
5. *Checkbox list;*
6. *Tray icon ;*
7. *Connector object;*
8. *Timer.*

3.3.5. The Shapes menu

The **Shapes** menu is shown on the figure below:

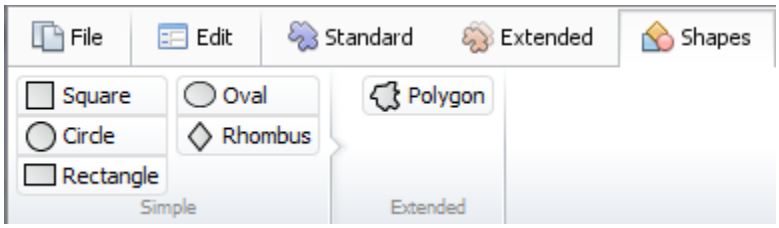


Figure 44. The *Shapes* menu

This menu comprises the following items:

1) Simple:

1. *Square*
2. *Circle*

3. *Rectangle*
4. *Losange*
5. *Rhombus*

2) Extended :

6. *Polygon*

3.3.6. Vaadin menu

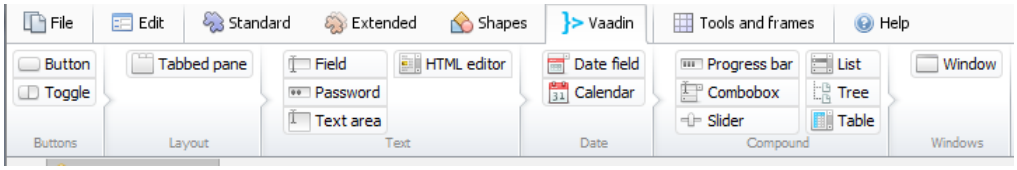


Figure 45. The *Vaadin* menu

The **Vaadin** menu includes the following items

1. *Buttons*
2. *Layout*
3. *Text*
4. *Date*
5. *Compound*
6. *Window*

3.3.7. Tools and Frames menu

The **Tools and Frames** menu is shown on the figure below:

Figure 46. The T*ools and Frames* menu

It includes the following items:

1. *Area settings;*
2. *Frames settings;*
3. *Tools*
4. *Zoom*

If a tool is available, its icon is highlighted. The description of the interfaces of all tools is given in section Tools.

3.3.7.1. The display of actions

	Hide/display actions on the edit area

Each action is designated by a blue arrow directed from the object defining the event towards the object of the action.
The button allows to display and to hide actions on the edit area.
Hiding the actions may be useful when, for instance, the objects are connected by a great number of actions and their visualization makes difficulties in the perception of the interface. If it is necessary to define the actions the objects are connected by, it is sufficient to display the actions again.

3.3.7.2. Objects view customization

	Display the borders

This button allows to display the borders of the area occupied by the object. The borders are marked by the black dotted line. The function may be useful when working with objects whose border is implicit.

Figure 47. The borders are not displayed

Figure 48. The borders are displayed

3.3.8. The Help Menu

The **Help** menu is shown on the figure below:

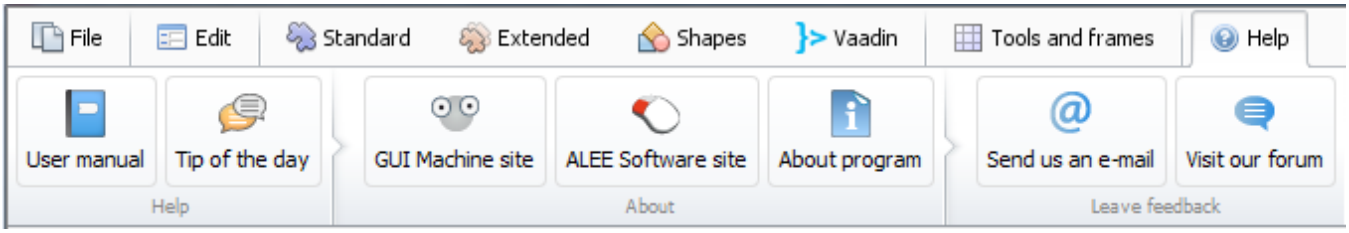


Figure 49. The Help Menu

It includes the following items:

1. *User's Manual;*
2. *Tip of the day;*
3. *GUI Machine site;*
4. *ALEE Software site;*
5. *About the programs;*
6. *Send us an e-mail;*
7. *GUI Machine forum*

3.4. Edit Area

The Edit Area is the main working area in which prototypes are created. It consists of the following elements:

- the edit area;
- the toolbar;
- the page manager

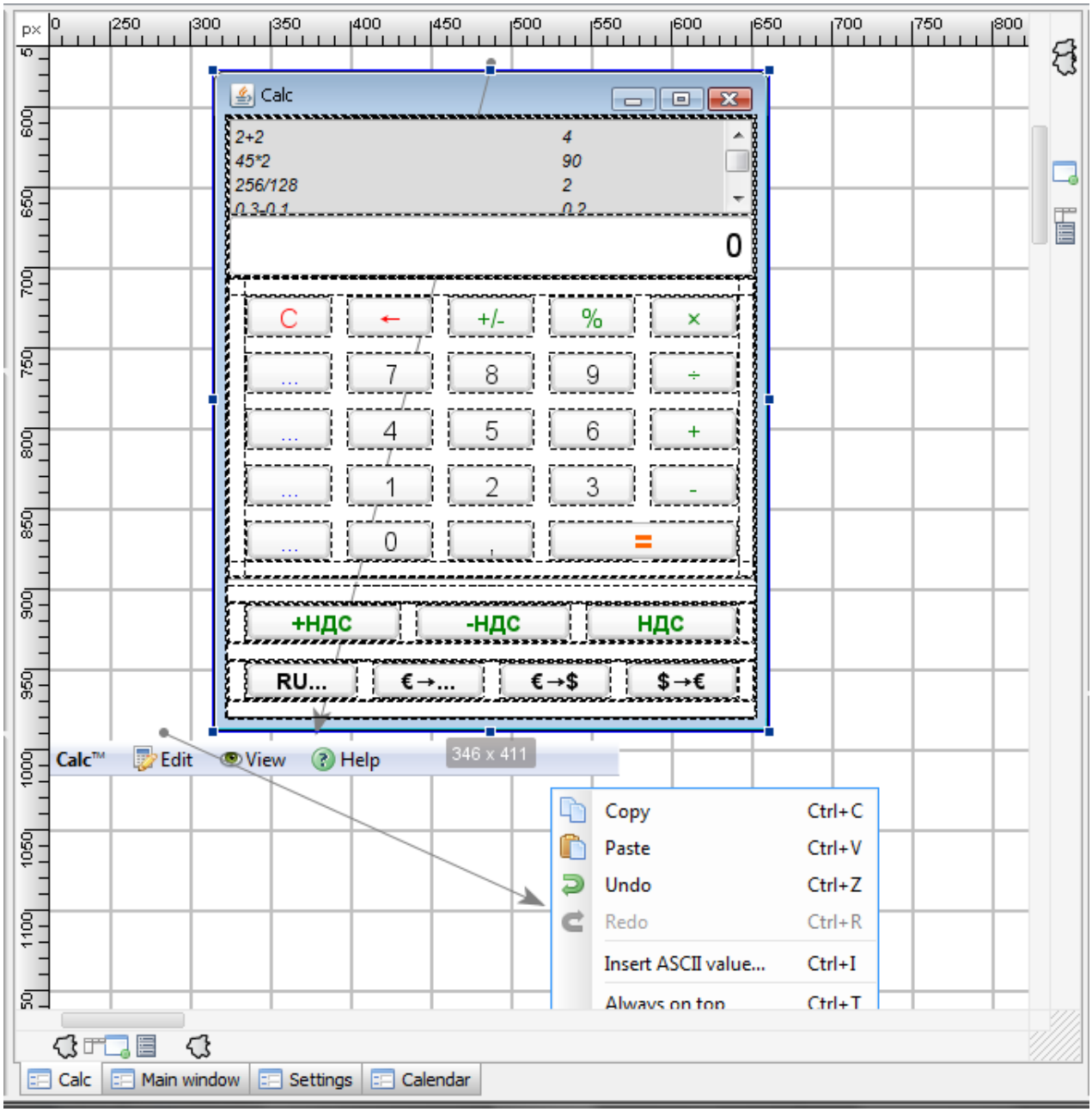


Figure 50. GUI Machine Edit Area

3.4.1 Edit Area

Single objects, interface elements and prototypes can be located on the edit area. The edit area can be resized if necessary.

Edit Area Navigation

The Edit Area can be navigated :

- ➔ with the help of the horizontal and the vertical scrollbars;
- ➔ by moving the mouse with the wheel pressed;
- ➔ by pressing the keys ***Page Up*** ans ***Page Down*** for shifting from screen to screen up and down;
- ➔ by pressing the keys ***Page Up*** and ***Page Down*** together with ***Ctrl*** for moving from screen to screen to the left and to the right;
- ➔ by pressing the keys ***End*** and ***Home*** together with ***Ctrl*** for moving to the right lower corner and the left upper corner;
- ➔ by pressing the icons , или in the left upper corner
- ➔ with the help of the Hand tool. Select the item Application Settings in the File menu or press ***Ctrl+S***. Deselect the checkbox ***Navigation scroll with middle mouse button***:

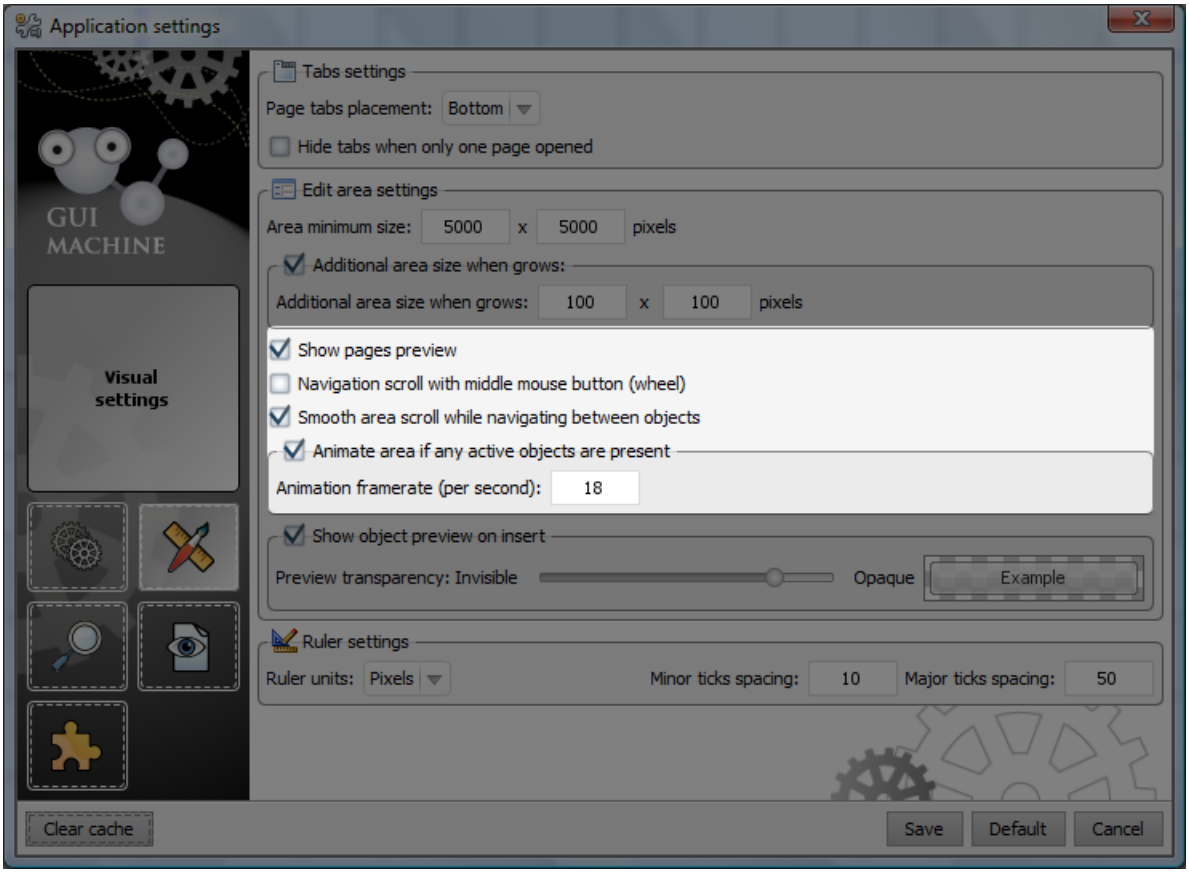


Figure 51. Navigation settings

The ***Hand*** tool will appear right after clicking on the mouse wheel. The navigation with the Hand tool is also available on pressing ***Space+PgUp/PgDn***. This type of navigation may be very useful when working with prototypes of great size.

3.4.1.1. Rulers

The rulers provide for the exact positioning and the size of the objects. They are located along the upper and the left borders of the edit area. The tick marks on the ruler show the position of the cursir when moving. The shifting of the grid origin allows to begin measuring from a definite point on the object. The size of the objects is measured in pixels by default. The tick marks are located over one tick in five. To change the settings of the ruler select the item **File → Application settings** or press ***Ctrl+S***:

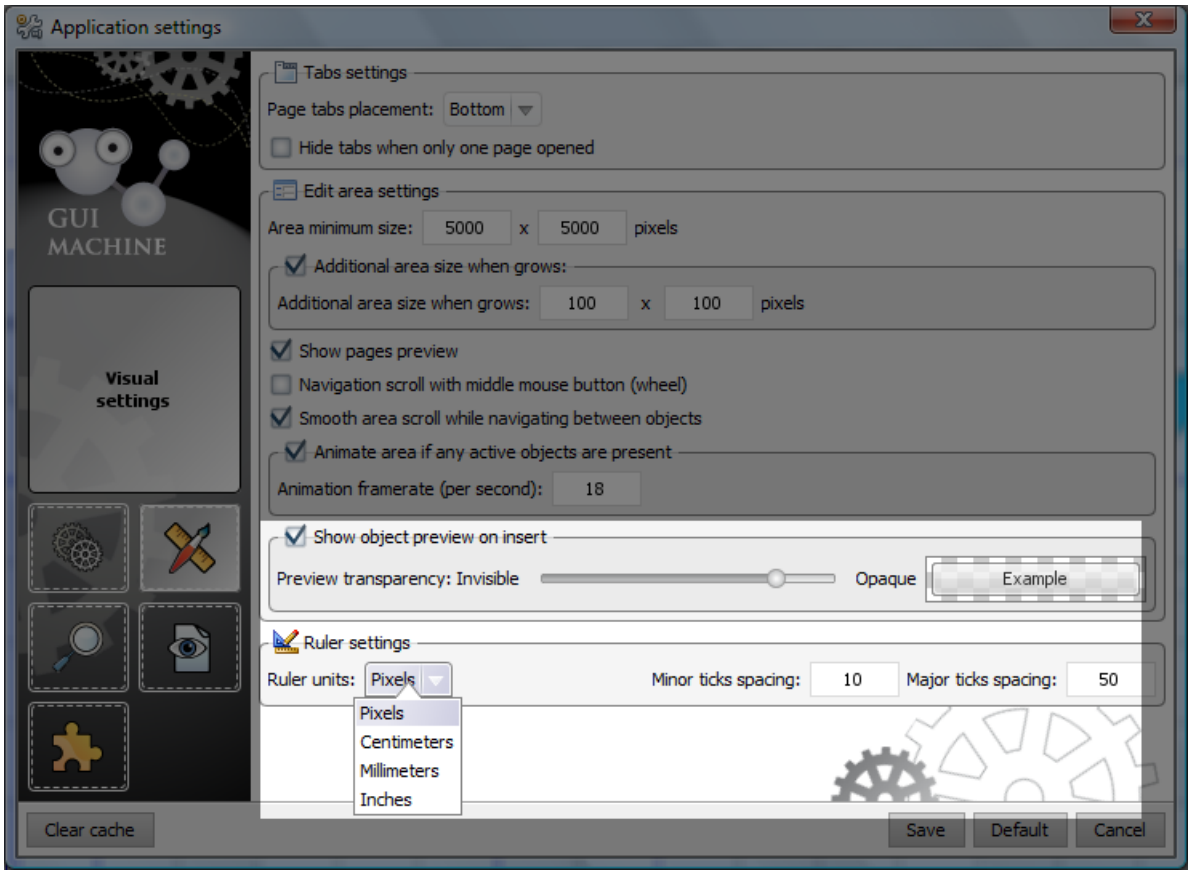


Figure 52. Ruler settings

3.4.1.2. The grid

The grid provides for the exact and symmetrical positioning of objects. It consists of nonprintable symbols. It can be changed and hidden.

The size of the grid is changed when changing the ruler settings. It is possible to change the grid spacing and the area width. To change the grid size select the item **Tools and Frames → Area Settings**

3.4.1.3. Guidelines

The guidelines as well as the grid allow to position the objects more exactly.

The guidelines are displayed as nonprintable blue lines on the edit area. The guidelines can be added, moved, hidden and deleted. They can also be fixed lest they moved by mistake. The distance between the guidelines can be set ad libitum. You can set any distance between the guidelines. When moving any guideline is highlighted with red.

The guidelines work in the following way:

- The selected objects are snapped to the guidelines when moving for 8 pixels from them.

To disable snapping the objects to guidelines select **Tools and Frames→ Area Settings** and click the icon ***(snap to guidelines)***

Adding guidelines

Guidelines can be added in the following way:

- ➔ Double-click the horizontal ruler to add a vertical guideline and the vertical rule to add a horizontal guideline.
- ➔ Press the right mouse button when the cursor is on the vertical or on the horizontal ruler and move the cursor to the edit area in order to create the guidelines.
- ➔ Press the left mouse button when the cursor is on the crossing of the rulers and move the cursor to the edit area to create guidelines.

Moving guidelines

To move a guideline mouse it over (the appearance of the cursor must change) and move it to any place on the edit area.

It is also possible to create two intersecting guidelines. Mouse the intersection over and move it to any place on the edit area.

Hiding guidelines

To hide the guidelines select **Tools and Frames → Area Settings and click the icon** (show guidelines). To display the guidelines click this button again.

Deleting guidelines

To delete a guideline drag it to the area where the ruler is located. To delete all guidelines select the item **Tools And Frames → Area Settings and click on the icon** (delete guidelines). You should see the following window appear:

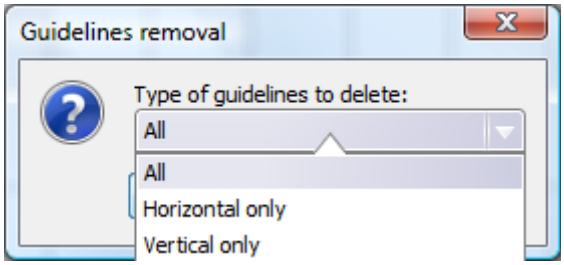


Figure 53. Deleting guidelines

Select the guidelines to delete in the dropdown list. The following options are available:

- *All;*
- *Horizontal only ;*
- *Vertical only.*

Select the necessary option and press **OK**.

Locking the guidelines

To lock the guidelines select the item **Tools and Frames → Area Settings** and click on the icon (lock the guidelines). This will make the moving of the guidelines impossible.
If you need to move the guidelines, click on this icon again.

3.4.2. Settings for prototype preview

The set of tools for prototype preview is given on the figure below:

Figure 54. Tools for preview

For the detailed description of the tools will be given in furhter items.

3.4.2.1. Settings for the edit area

The edit area can also be customized from the main menu.

3.4.2.2. Print settings

	File → Print pages

In this item you can change such settings as the type of the printer, the number of copies, the print range.

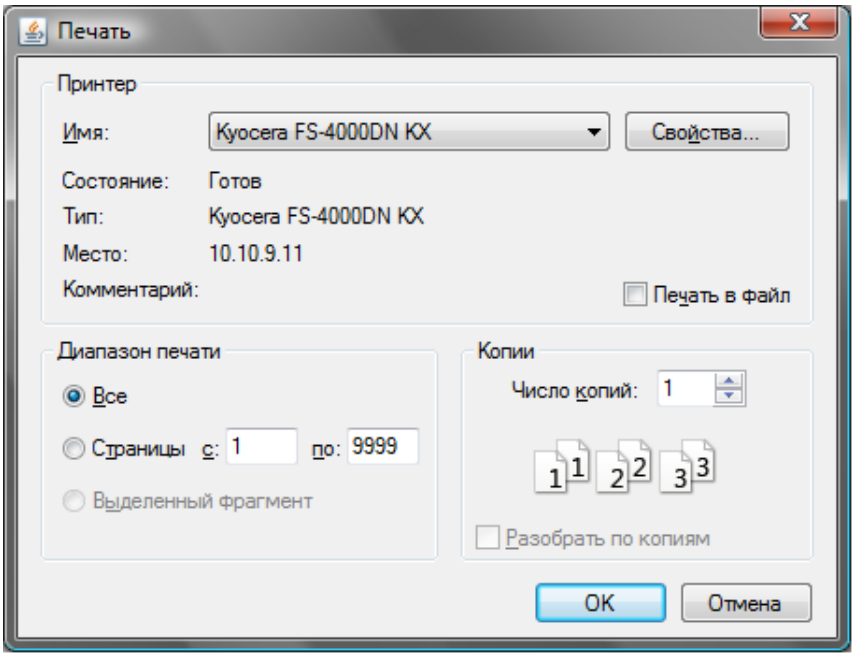


Figure 55. Print Settings

	File → Show pages

This item allows to display the borders of the printable pages and areas. The borders of pages are marked by red lines.

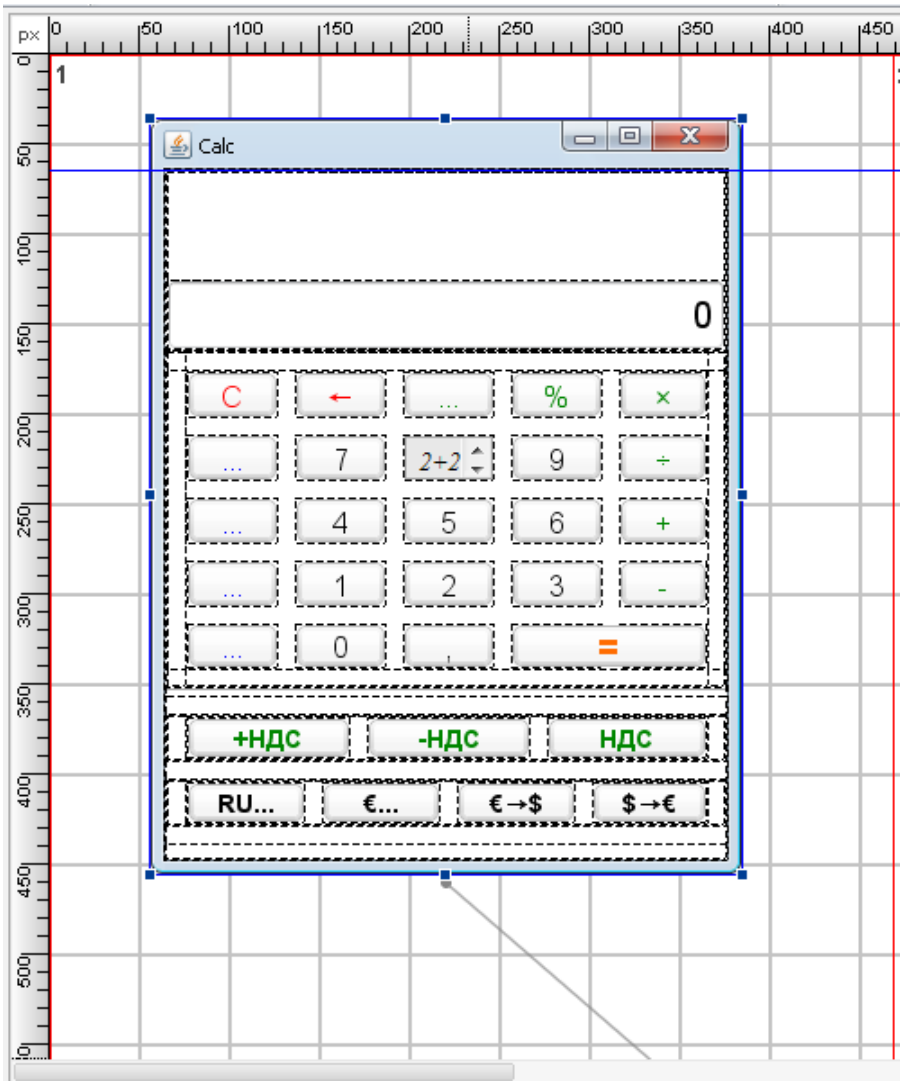


Figure 56.The outline of printable pages

	File → Print Settings

After selecting this option you should see the following window appear :

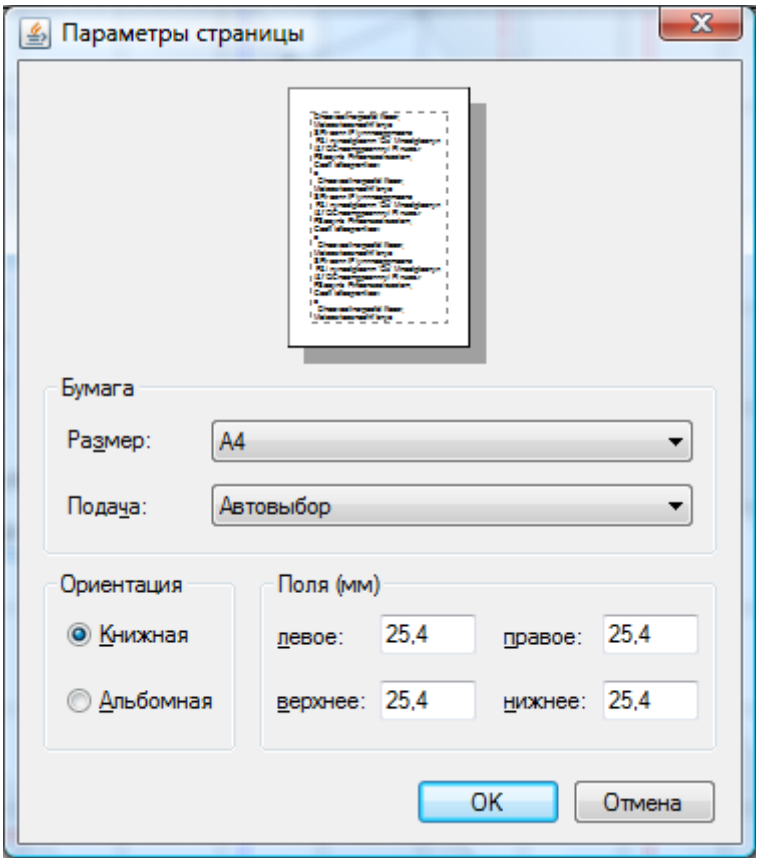


Figure 57. Print settings

In this window you may change the following settings:

- ➔ *Size;*
- ➔ *Feeding;*
- ➔ *Orientation;*
- ➔ *Margin.*

After changing the settings press **OK**.

3.4.2.3. Settings for the appearance of the edit area

☐	**Tools and Frames→ Area Setting→ Show Background**

Clicking this icon you can switch the display of the background on/off. When the background is switched off the edit area looks as shown on the figure below:

Figure 58. The edit area without background

This function may be useful for the more demonstrative display of transparent and nontransparent objects.

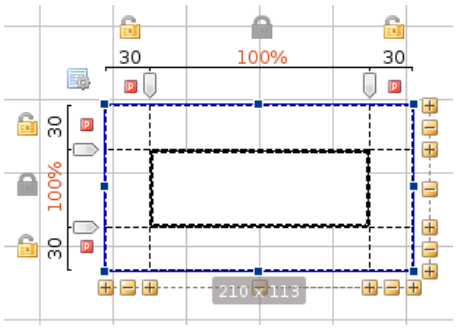


Figure 59. The white background

или

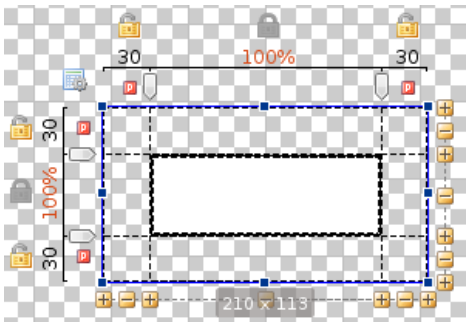


Figure 60. Without background

	Tool frame → Area settings→ Pages background color

Clicking on this button you can change the necessary color of the page background.

	Tools and Frames → Area Settings →Show large grid

The size of the grid increases when pressing this button.

3.4.2.4. Settings for guidelines

	Tools and Frames → Area settings→ Snap to guidelines

When this option is selected the objects are not snapped to guidelines serving as orienting points.

	Tools and Frames → Area Settings→ Lock guidelines

After selecting this item the guidelines become locked and it will be impossible to move them.
If you want to move the guidelines, select this item one more time.

	Tools and Frames→ Area settings → Show guidelines

All guidelines will be hidden after selecting this item. Select this item again to show the guidelines.

	Tools and Frames→ Area settings → Delete guidelines

Guidelines can be deleted by selecting this item.

3.4.2.5. Navigation settings

	Tools and Frames→ Area settings →Show the sidebars

The order of the objects on the edit area is shown by icons located on the right and at the bottom.(Fig. 50).

By this figure it s possible to define that the polygons are situates in the upper part of the edit area; between them there is a window and to the left of it there is a menu; in the lowest part of the area there is a list.

This function is useful for object search of the objects are situated far from each other.

3.4.3. Page manager

When a prototype includes multiple interfaces, it is more convenient to create its parts on separate pages

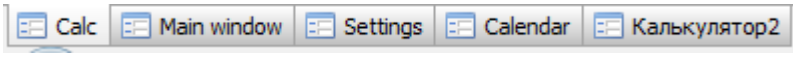


Figure 61. Page manager

The page manager allows to:

- ➔ create new pages;

- ➔ remove pages;
- ➔ rename pages;
- ➔ to browse the list of pages;
- ➔ to switch between the pages.

There are several ways to create a new page:

- ➔ to make a right-button click on the tab of any page and select the item **Create new page**
- ➔ to press ***Ctrl+N* ;**
- ➔ to select the item **Edit** → **New page** in the main menu ;
- ➔ to make left-button double-click on the empty area located on the right of the tabs of the pages

There are several ways to delete pages:

- ➔ to click the pages tab and select the item **Delete page**;
- ➔ to select the item **Edit** → **Delete page** in the main menu**;**
- ➔ to press ***Ctrl+W***.

There several ways to rename pages:

- ➔ to doubl- click on the tab of the page to be renamed;
- ➔ to make a right-button click on the tab of the page and select the item **Rename page**;
- ➔ to select the item **Edit** → **Rename page** in the name menu;
- ➔ to press ***Ctrl+F2***.

There are three ways to switch between the panels:

- ➔ to make a left-button click on the tab of the page. If the tab is located beyond the zone of vision, press the buttons ◀ ▶ or use scrolling by the mouse wheel;
- ➔ to select the necessary page from the list;
- ➔ to select the tab of the page and press the arrow buttons

Cache flush

To flush the cache select the item **File** → **Program settings** and press the button **Clear cache** in the window that will open.

Cache flush is recommended when you notice that some of the objects went out of the layout and were modified.

4. Tools

The functions of the following tools are described in this section:

- ➔ **Components ;**
- ➔ **Object properties;**
- ➔ **Layers ;**
- ➔ **History ;**
- ➔ **Templates**

4.1. Components

This is the basic tool used for the creation of prototypes. GUI Machine comprises four sets of components: *Standard*, *Extended, Shapes* and *Vaadin*.

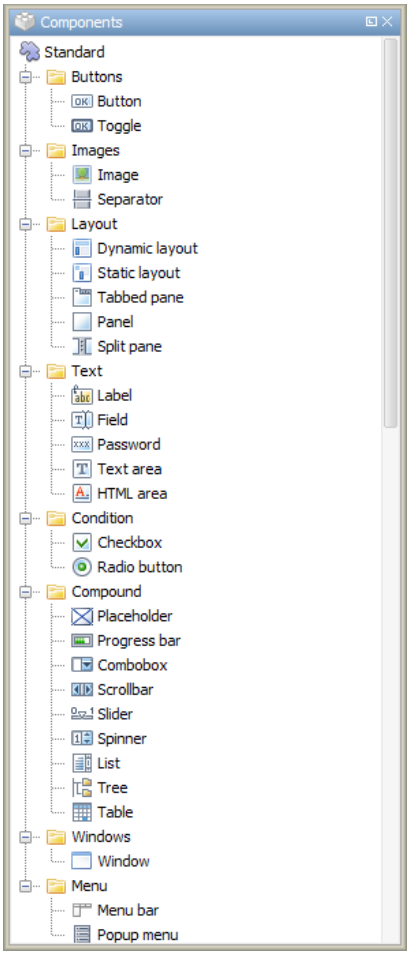


Figure 62. The standard set of components

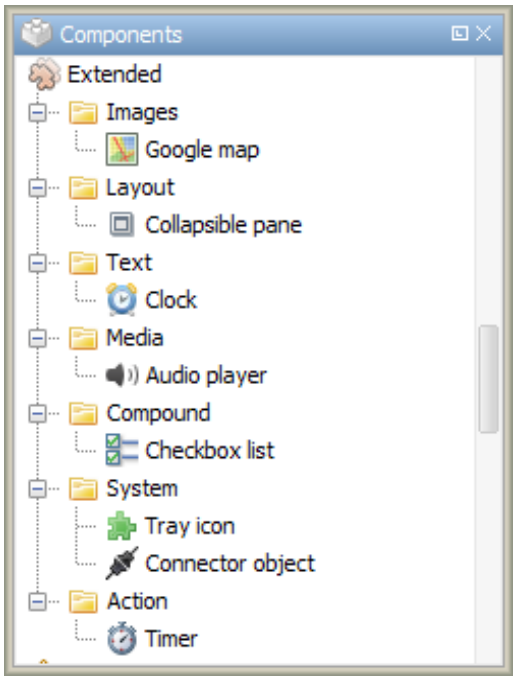
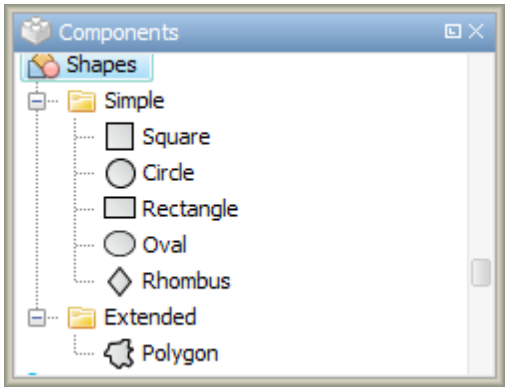


Figure 63. The Extended set of components



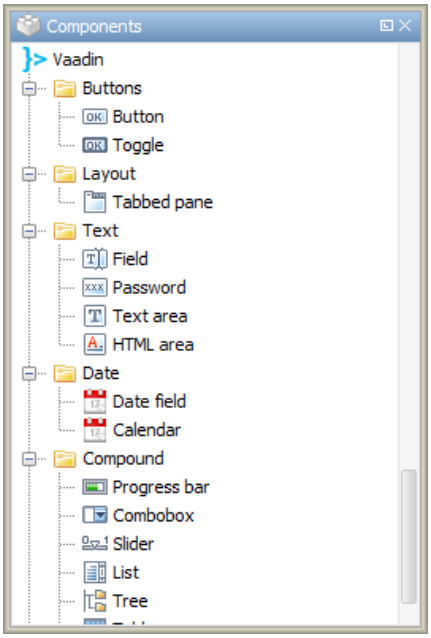


Figure 64. Vaadin menu

Figure 65. The Shapes menu

Components are represented by leaf nodes of the tree. They are united in groups in accordance with their function forming terminal nodes
You can change the way of displaying components by a right-button click at any place:

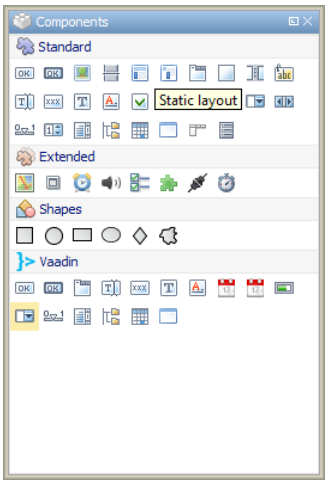


Figure 66. The compact view of the components panel

To display the components panel select **Tools and Frames→ Frame Settings** and click the icon ***Components****(Fig. 67)***.** The tool is switched on by default.

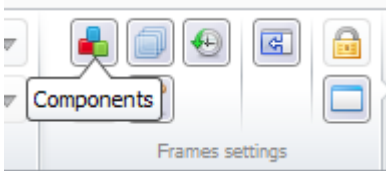


Figure 67. Swiching the components tool on/off

This tool is designed for adding components on the edit area.

There are two ways to add a component on the edit area:

- by a double-click
- by dragging it with the mouse

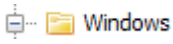
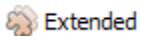
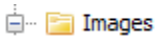
All the components are described in table below.

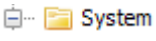
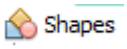
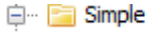
Table 2. Components

Icon	Component	Function
	Standard **Standard**	
Buttons **Buttons**		
	Button	A user interface element providing the user a simple way to trigger an event.
	Toggle button	A button with the additional possibility to toggle a state. It has two states, select and deselected.
Images **Images**		
	Image	Allows to insert images in the prototype.
	Separator	A widget allowing to divide the parts of the interface.
Layout **Layouts**		
	Dynamic layout	This is the wireframe of dynamic interfaces. It allows to divide the area into cells and arrange the objects inside. Each cells can be resized. The objects in the layout are resized when resizing the interface.
	Static layout	Allows to arrange objects inside without lining. It fits automatically to the size of the objects it contains. The objects in the layout are not resized when viewing the prototype.
	Tabbed pane	Allows multiple elements to be contained within a single window using tabs as navigational widgets for switching between these elements.

	Panel	Allows to divide the interface into logical parts as well as to arrange control elements.
	Split pane	A panel with a draggable divider (also called splitter) between two components. It allows the user to change the size of the components dynamically.
Text	**Text**	
	Text label	A standard widget used for displaying text on the screen.
	Text field	An interface element allowing the user to enter text information.
	Password field	A standard widget used for entering passwords. Password field allows to create a field, similar to a text field, that users can type into. This field however causes everything show up as asterisks (*) so onlookers cannot see what is being typed.
	Text area	An interface element inside which texts are type and element/
	HTML-editor	A text area designed for work with HTML-texts.
Condition	**Condition**	
	Checkbox	Permits the user to make multiple selections from a number of options or to have the user answer yes (checked) or no (not checked) on a simple yes/no question.
	Radiobutton	Allows to select one of the predefined set of options.

Compound	**Compound**	
	Placeholder	A widget standing for another interface element .
	Progress bar	A widget used to convey the progress of a task, such as a download or file transfer.
	Combobox	It is a combination of a dropdown list and a single-line textbox allowing the user to either type a value directly into the control or choose from the list of existing options.
	Scroll bar	A widget with which continuous text, pictures or anything else can be scrolled, i.e., viewed even if it does not fit into the space in a display, window or viewport.
	Slider	A widget with which a user may set a value by moving an indicator, usually in a horizontal fashion.
	Spinner	A graphical widget, typically oriented vertically, with which a user can adjust the value in the adjoining textbox by either clicking on an up and down arrow or by holding the arrows down thus making the value increase or decrease.
	List	Allows the user to select one or more items from a list contained within a static, multiple line text box. The user clicks on an item to select it. Multiple selections are made by clicking on items in combination with the Shift key or with the Control key.
	Table	Allows to create tables.

	Tree	A tree is a data-structure that emulating hierarchical tree structure with linking nodes. Internal nodes can be open by clicking (+) and (-).
 **Windows**		
	Window	Allows to create windows.
Menu		
	Menu bar.	Allows to create menu bar. A menu bar is a region of a screen or application interface where dropdown menus are displayed.
	Pop-up menu (context menu)	A menu appearing upon user interaction, typically upon a right-button click. Usually it has a limited number of choices related to the selected object.
 **Extended**		
 **Images**		
	Google map	Allows to add a Google map
Layout		
	Collapsible pane	A panel which can store content in a compact space. User can hide or reveal the content of the panel by clicking on its tab.
Text		

	Clocks	Allows to add to the interface clocks of different types
Media		
	Audio player	An interface element used for playing sound files.
Compound		
	Checkbox list	A list consisting of checkboxes. Each checkbox can be selected or deselected, enabled or disabled.
 **System**		
	Tray icon	An icon that can be added to the system tray. It can have a tooltip, an image, a popup menu or set of listeners accociated with it,
	Connector object	An interface element allowing to establish connection with other prototypes or applications via system sockets
Actions		
	Timer	A specialized type of clock used to control the sequence of an event or a process.
 **Shapes**		
 **Simple**		

	Circle	Allows to add a circle.
	Oval	Allows to add an oval.
	Square	Allows to add a square.
	Rectangle	Allows to add a rectangle.
	Rhombus	Allows to add a rhombus.
Extended		
	Polygon	Allows to add a polygon.
Vaadin Components		
Date		
	Date field	A widget allowing the user to enter the date either by typing it or by choosing it from the calendar in the dropdown menu.
	Calendar	A widget displaying the calendar and allowing to select the date.

Note. The Vaadin set of components also includes components similar to those included in the standard set. As their functions are the same, their detailed description is not included in this table.

4.2. Object Properties

With the help of this tool you can select different settings for object thus modifying the look of interface elements. When an object on the edit area is selected, its properties are displayed in the special window.

The number of properties depends upon the type of the object. Each object has *unique* (i.e. pertinent to a certain type of objects) and *repeated* (pertinent to objects of different types)

All object properties can be divided into the following groups:

- properties for concrete types of objects;
- general properties characteristic for all objects;
- editor properties, i.e. those infuencing the display of the object on the edit area but not in the prototypes

It is possible to modify the properties of the objects set by default. Some of the properties can be modified when editing. Some of the properties cannot be changed (for instance, object type or object ID). It is possible to modify the properties of several objects when selecting all of them.

4.2.1. The Description of Object Properties

4.2.1.1. Standard Properties

Standard properties are those which can be attributed to all objects. They are described in the table below:

Table 3. Standard object properties

Icon	Property	Description
Standard object properties		
	Tool tip text	By changing this property you can change the text in the tooltip appearing when hovering the cursor on the object.
	Cursor	This property allows to select a cursor for the object from a predefined set.

	Visible	By changing this property you can make the object visible/invisible on the edit area.
	Opacity	Allows to change the opacity of the object in the range from 0 (tranparent) to 1 (absolutely opaque).
	Scroll bars	Allows to switch the display of scrollbars on/off.
	Horizontal scroll	This property works only when the scrollbars are on. It allows to set up the display of the horizonal scroll bar. The following options can be selected from the dropdown list: • *Always show;* • *Show when needed;* • *Never show.*
	Vertical scroll	This property works only when the scrollbars are on. It allows to set up the display of the vertical scroll bar. The following options can be selected from the dropdown list: • *Always show;* • *Show when needed;* • *Never show.*

4.2.1.2 Properties for Editor

Table 4. Properties for Editor

Icon	Propery	Description
Properties for Editor		
	Object type	Displays the type of the object. This property cannot be edited.
	Object ID	Displays the identical number of the object. Cannot be edited.
	Minimal size	Allows to set the minimal size of the object. This property is editable but not for all objects. The minimal size of the object cannot exceed the default size.
	Name	Displays the name of the object.
	Resizable left-right	Allows/prohibits the changing of the object width
	Resizable up-down	Allows/prohibits the changing of the object height.
	Movable	Allows/prohibits to move the object

4.2.1.2. Properties for buttons

Table 5. Properties of buttons

Icon	Property	Description
Properties for buttons (including checkboxes and radiobuttons)		
	Image	This property allows to select an image for the button.

	Selected image	Allows to select the image which will be displayed when the button is selected.
	Rollover image	Allows to select the image which will be displayed when the button is hovered.
	Selected rollover image	Allows to select the image which will be displayed when the button is selected and hovered.
	Pressed image	Allows to select the image which will be displayed when the button is pressed.
	Disabled image	Allows to select the image which will be displayed when the button is disabled.
	Selected disabled image	Allows to select the image which will be displayed when the button is selected and disabled.
	Text	This property allows to select the text for the button.
	Selected text	Allows to enter the text which will be displayed when the button is selected.
	Disabled text	Allows to enter the text which will be displayed when the button is hovered.
	Selected disabled text	Allows to enter the text which will be displayed when the button is selected and hovered.
	Rollover text	Allows to enter the text which will be displayed when the button is pressed.
	Pressed text	Allows to enter the text which will be displayed when the button is disabled.
	Mnemonic	Allows to set a mnemonic for a button
	Gap	Allows to set a gap between the image and the text.
	Text shift	Allows to set the size of the lacunes in the text.
	Horizontal alignment	Allows to align the content horizontally. Three options are available: *Center, Left, Right*.
	Vertical alignment	Allows to align the content vertically. Three options are available: *Center, Left, Right*.

	Horizontal text position relative to the image	Allows to position the text horizontally relative to the image. Three options are available: *Center, Left, Right*.
	Vertical text position relative to the image	*Allows to position the text vertically relative to the image*. Three options are available: *Center, Left, Right*.
	Font color	Allows to change the font color
	Font	Allows to change the type and the size of the font
	Enable	Allows to enable/disable the object
	Decorated	Enables/disables the decoration of the object

* Mnemonic is an underlined character in the text inside the button. It indicates which key to press to activate a command or navigate to a component.

4.2.1.3. Properties for images

Table 6. Properties for images

Icon	Property	Description
Properties for images		
	Image	Allows to add images from the file system or from the previously used images. The images can also be found by Google search engine.
	Orientation	Allows to position the image: • *by the size of the image* • *by the size of the object;* • *as a background image.*
	Scale	Horizontal and vertical image scaling
	Rotation angle	Allows to set the image angle (0° - 399°)
	Horizontal alignment	Allows to align the content horizontally. Three options are available: *Center, Left, Right*.
	Vertical alignment	Allows to align the content vertically. Three options are available: *Center, Left, Right*.

4.2.1.4. Properties for separators

Table 7. Properties for separators

Icon	Property	Description
Properties for separators		
	Orientation	Allows to position the separator horizontally or vertically
	Background color	Allows to select the backgroung color for separators.
	Unlocked	Allows to lock/unlock the object

4.2.1.5. Properties for layouts

Table 8. Properties for layouts

Icon	Property	Description
Properties for layouts		
	Linked objects	This property shows the number of objects linked to the layour and cannot be edited,
	Columns/rows	This property shows the number of columns and rows in the layout and cannot be edited.
	Border color	Allows to change the border color.
	Background color	Allow to set the background color.
	Update content dynamically	Allows to display the layout object when it is used in another interface (by means of an action or a placeholder)
	Show borders	Allows to display the border of a dynamic layout when previewing.
	Border width	Allows to set up the width of borders

	Show cell borders over the background	Allows to display the borders of the cells.
	Spacing	Allows to fix the spacing between the cells of the layout

4.2.1.6.Properties for panels

Table 9. Properties for panels

Icon	Property	Description
Properties for panels		
	Border type	Allows to select the type of the border. There are 7 border types: • *Empty;* • *Line;* • *Rounded;* • *Lowered bevel;* • *Raised bevel;* • *Lowered etched;* • *Raised etched.*
	Border width	Allows to set the border width.
	Border color	Allows to select the border color.
	Border dark side color	Allows to select the color for the dark side of the border.
	Border light side color	Allows to select the color for the light side of the border.
	Border header	Allows to set the header for the border of the panel

4.2.1.7. Properties for split panels

Table 10. Properties for split panels.

Icon	Property	Description
Properties for split panels		
	Divider location	Shows the location of the divider on the split panel.
	Divider size	Allows to change the size of the divider.

4.2.1.8. Properties for tabbed panels

Table 11. Properties for tabbed panels

Icon	Property	Description
Properties for tabbed panels		
	Tabs properties	Displays the number of tabs. Allows to add and edit tabs.
	Selected tab	Displays the selected tab and allows to change tabs.
	Tabs position	Allows to change the position of the tabs.

4.2.1.9. Properties for text fields and areas

Table 12. Properties for text fields and areas

Icon	Property	Description
Properties for texts fields and areas		
	Text	Allows to enter and edit the text
	Text margin	Allows to set the text margin
	Link	Allows to add a link: • to a website (e.g., http://www.google.com); • to a local resource (e.g., C:\); • to an e-mail address (e.g. mailto:support@alee.ru); • to a FTP resource (e.g., ftp://files.alee.ru).
	Empty field text	Allows to enter the default text displayed in empty text forms.
	Empty field font	Allows to select the font for the empty field text.
	Empty field font color	Allows to select the color of the font for the empty field text.
	Background color	Allows to select background color.
	Font	Allows to select the style and the size of the font
	Font color	Allows to select the font color

	Empty field text horizontal alignment	Allows to align the empty field text horizontally.
	Empty field text vertical alignment	Allows to align the empty field text vertically.
	Masking character	Allows to select the masking character for password fields.
	Line break	Allows/prohibits the line break.
	Wordwrap	Allows/prohibits the wordwrap.
	Content type	Allows to change the way of displaying the content (plain text or HTML).
	Editable	Makes the text available for editing when selected.

4.2.1.10. Properties for the placeholder

Table 13. Properties for the placeholder

Icon	Property	Description
Properties for the placeholder		
	Object to be replaced	Allows to select an object to be replaced by the placeholder.

4.2.1.11. Properties for the progress bar

Table 14. Properties for the progress bar

Icon	Property	Description
Properties for the progress bar		
	Orientation	Allows to select the bar position (horizontal or vertical).
	Indeterminate	The way of visualizing used in situations where the extent of the task is unknown or the progress of the task cannot be determined in a way that could be expressed as a percentage.
	Show values	Allows to display the scale.

4.2.1.12. Properties for lists

Table 15. Properties for lists

Icon	Property	Description
Properties for lists		
	List settings	Allows to fix the type and the number of elements in the list.
	Row height	Allows to set the height of the rows
	Indices of selected elements	Displays images for selected list elements.
	Orientation	Allows to change orientation for the elements of the list.

	Visible range	Allows to fix the visible range of list elements.
	Selected element	Displays the selected element. Allows to select the element to be displayed in the field.
	Selection fore ground	Allows to choose the color for the font of the selected list elements
	Selection background	Allows to choose the background for the selected list elements

4.2.1.13. Properties for the spinner

Table 16. Properties for the spinner

Icon	Property	Description
Properties for the spinner		
	Current value	Allows to adjust the current value of the spinner.
	Value type	Allows to select the type of the value (*Number* or *Date*)

4.2.1.14. Properties for the slider

Table 17. Properties for the slider

Icon	Property	Desciption
Properties for the slider		
	Small division	Adjusts the size of small scale divisions
	Coarse division	Sets the size of coarse scale divisions

	Show values	Switches on/off the display of divisions value.
	Show ticks	Allows to display the small and coarse divisions of the scale with intervals equal to the sizes of small and coarse divisions respectively.
	Snap slider to divisions	Snaps the slider to the divisions of the scale.

4.2.1.15. Properties for the scrollbar

Table 18. Properties for the scrollbar

Icon	Property	Description
Properties for the scrollbar		
	Orientation	Allows to configure the orientation of the scrollbar *(horizontally* or *vertically)*.
	Small division	Sets the size of small scale divisions
	Coarse division	Sets the size of coarse scale divisions
	Show values	Switches on/off the display of divisions value.
	Show ticks	Allows to display the small and coarse divisions of the scale with intervals equal to the sizes of small and coarse divisions respectively.

	Snap slider to divisions	Snaps the slider to the divisions of the scale.
	Minimal value	Allows to set the minimal value of the interval
	Maximal value	Allows to set the maximal value of the interval
	Current value	Allows to set the current value
	Visible range	Allows to select the region which is visible when viewing the slider.

4.2.1.16. Properties for the tree

Table 19. Settings for trees

Icon	Property	Description
Properties for trees		
	Tree settings	Allows to modify the structure of the tree and add new elements.
	Tree selection mode	Allows to choose one of the three possible selection modes for the elements of the tree: • Single selection; • Block selection • Multiple selection
	Show tree root	Allows to display the root of the tree

4.2.1.17. Properties for tables

Table 20. Properties for tables

Icon	Property	Description
Properties for tables		
	Table settings	Displays the number of columns and rows in the table. Allows to edit them.
	Table resize mode	Allows to resize the table.
	Columns reordering allowed	Allows to reorder the columns when viewing the table.
	Selection type	Allows to choose the elements of the table (rows, cells, columns) to be selected
	Selection foreground	Allows to choose the color for the selected elements of the table
	Selection background	Allows to choose the background color for the selected elements of the table
	Show header	Allows to display/hide the header of the table
	Font	Allows to select the style and the size of the font
	Font color	Allows to select the font color
	Background color	Allows to select background color.

4.2.1.18. Properties for windows

Table 21. Properties for windows

Icon	Property	Description
Properties for windows		
	Window menu bar	Allows to select the menu bar for the window,
	Window style	Allows to select the design style for the window. The styles of the following operating systems can be selected: Windows XP, Ubuntu, Windows Vista, Gnome, Mac OS, Windows, Mac OS Grey.
	Header style	Allows to select the desing for the window header in the style of one of the following browsers: Пустой, Internet Explorer 8, Firefox 3.6, Opera 10, Safari 5.
	Dialog window	Displays the window as a dialog window
	Modal window	Allows to create a modal window (A modal window is a child window that requires users to interact with it before they can return to operating the parent application, thus preventing the workflow on the application main window . Modal windows are commonly used in GUI systems to command user awareness and to display emergency states. On the Web, they are often used to show images in detail)
	Parent window	Allows to select the parent window for the given window.

	On top of all windows	Allows to display the window atop all other windows.
	Allow closing window	Allows to enable/disable the closing of the window*
	Resizable	Allows to change the size of the window
	Pack width	Allows to close the window automatically on focus loss
	Pack height	Allows to shrink the window by height when viewing
	Pack width	Allows to shrink the window by width when viewing
	Font	Allows to select the style and the size of the font
	Font color	Allows to select the font color
	Background color	Allows to select background color.

*If this property is disabled, the window can be closed by pressing **Shift +F4** or by stopping the preview of all interfaces in the main menu.

4.2.1.19. Properties for menus

Table 22. Properties for menus

Icon	Property	Description
Properties for menus		
	Menu settings	Displays the number of menu items and launches the menu editor.

	Pop-up menu settings	Displays the number of pop-up menu items and launches the menu editor
	Font	Allows to select the style and the size of the font
	Font color	Allows to select the font color
	Background color	Allows to select background color.

4.2.1.20. Properties for Google maps

Table 23. Properties for Google maps.

Icon	Property	Description
Properties for Google maps		
	Map location keywords	Allows to mark with keywords the selected geographical points on the map.
	Map type	Allows to select the type of the map (road map, satellite map, physical relief map, satellite and road map hybrid)
	Map size	Allows to set the size of the map in pixels.
	Map zoom	Allows to increase the map according to the given scale.
	Map image format	Allows to select the format for the map : PNG8 ; PNG32; JPEG ;compressed JPEG image ; GIF image.
	Orientation	Allows to fit the image: • *to the image size;* • *to the object size* • *as a background image.*
	Scale	Horizontal and vertical scaling of the image.
	Rotation angle	Allows to set the rotation angle for the image (from 0 up to 359°)

	Horizontal alignment	Allows to align the object horizontally. There are three possible options: *Left, Right, Center*.
	Vertical alignment	Allows to align the object vertically. There are three possible options: *Left, Right, Center*.

4.2.1.21. Properties for collapsible panes

Table 24. Properties for collapsible panes

Icon	Property	Description
Properties for collapsible panes		
	Style	Allows to select the design of the collapsible pane: • *Dropdown list* • *Tree;* • *Separator;* • *Plain.*
	Placement	Allows to select the position of the pane. There are four possible options: *Top, Right, Left, Bottom*.
	Emphasized	Allows to emphasize the header of the pane.
	Expandable	Switches on/off the ability of the pane to collapse/expand.
	Collapsed	Allows to collapse the pane.
	Image	Allows to select the image which will be displayed in the panel header.
	Text	Allows to enter the text which will be displayed in the panel header.
	Font	Allows to select the style and the size of the font

	Font color	Allows to select the font color
	Background color	Allows to select background color.

4.2.1.22. Properties for clocks

Table 25. Properties for clocks

Icon	Property	Description
Properties for clocks		
	Time pattern	Allows to set the pattern for displaying time and date. By default the time is displayed according to the pattern hh:mm:ss. The following patterns are also possible: Date format / Result yyyy.MM.dd G 'at' HH:mm:ss z — 2011.04.04 AD at 10:46:46 MSD EEE, MMM d, "yy — Mon, Apr 4, '11 h:mm a — 10:46 AM hh 'o"clock' a, zzz — 10 o'clock AM, MSD K:mm a, z — 10:46 AM, MSD yyyyy.MMMMM.dd GGG hh:mm aaa — 02011.April.04 AD 10:46 AM EEE, d MMM yyyy HH:mm:ss Z — Mon, 4 Apr 2011 10:46:46 +0400 yyMMddHHmmssZ — 110404104646+0400 yyyy-MM-dd'T'HH:mm:ss.SSSZ — 2011-04-04T10:46:46.197+0400
	Clock type	Allows to select the type of the clock (clock, stop watch, timer).
	Time to complete	Allows to set the time interval for the timer in millisec
	Font	Allows to select the style and the size of the font
	Font color	Allows to select the font color

	Background color	Allows to select background color.

4.2.1.23. Properties for the audio player

Table 26. Properties for the audio player

Icon	Property	Description
Properties for the audio player		
	Audio resource	Allows to select an audio file to be played. The location of the file should be typed manually in the text field. Now it is possible to play mp3 files only.

4.2.1.24. Properties for the connector object

Table 27. Properties for the connector object

Icon	Property	Description
Properties for the connector object		
	Port number	Allows to set the port number for connection

4.2.1.25. Properties for shapes

Table 28. Properties for shapes

Icon	Property	Description
Properties for shapes		
	Moves window	Allows to change the position of the window
	Resizes window	Allows to resize the window when holding the figure
	Corner rounding	Allows to round the corners of the rectangles.. The property is coded by two values separated from each other by a column. For circular rounding enter two equal values. For elliptical rounding enter two different values . If the first number is greater than the second, the ellipse will be extended horizontally, othervise – vertically.
	Polygon corners	Displays the number of corners in a polygon.
	Snap points to sides	Allows to enable/disable snapping points to the sides of a polygon

4.2.1.26. Properties for data fields and calendars

Table 29. Properties for data fields and calendars

Icon	Property	Description
Properties for data fields and calendars		
	Selected date	Displays the date and allows to select the date in the calendar. The selected date is highlighted with blue.
	Displayed date	Displays the date when the calendar is previewed

	Time pattern	Allows to select a pattern of date and time display: Date format / Result yyyy.MM.dd G 'at' HH:mm:ss z — 2011.04.04 AD at 10:46:46 MSD EEE, MMM d, "yy — Mon, Apr 4, '11 h:mm a — 10:46 AM hh 'o"clock' a, zzz — 10 o'clock AM, MSD K:mm a, z — 10:46 AM, MSD yyyyy.MMMMM.dd GGG hh:mm aaa — 02011.April.04 AD 10:46 AM EEE, d MMM yyyy HH:mm:ss Z — Mon, 4 Apr 2011 10:46:46 +0400 yyMMddHHmmssZ — 110404104646+0400 yyyy-MM-dd'T'HH:mm:ss.SSSZ — 2011-04-04T10:46:46.197+0400
	Opaque	Allows to change the degree of the opacity of the object

4.2.1.27 Properties for the tray icon

Table 30.Properties for the tray icon.

Icon	Property	Description
Properties for the tray icon		
	Image	Allows to add image to the tray icon.

4.2.2. Auxiliary tools

Some object properties are set with the help of auxiliary tools. These tools are described below.

4.2.2.1. HTML/Text editor

HTML/Text editor is designed for typing, editing and formatting text. The interface of this tool is simple and user familiar.

To launch ***HTML/Текстового редактора*** you need to :

- open the properties object;
- select ***Text*** property;
- click on the button located right near this property

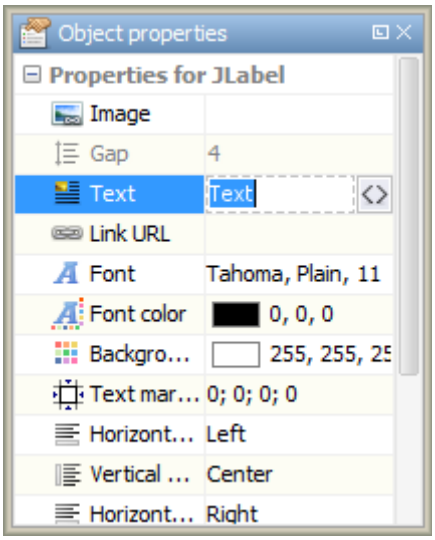


Figure 68. Launching the HTML-editor

If you do no need to work with HTML text, there is no need to launch the***HTML/Text editor.*** It is sufficient to type the text in the text field.

The main window of the tool includes 3 tabs:

- ***HTML-editor ;***
- ***HTML-code ;***
- ***Text editor***

HTML-editor

HTML-editor allows to create and edit texts in HMTL-format. You do not need to know HTML-language to work with the editor.
The workspace of the editor includes:

- the toolbar;
- the workspace where the text is entered.

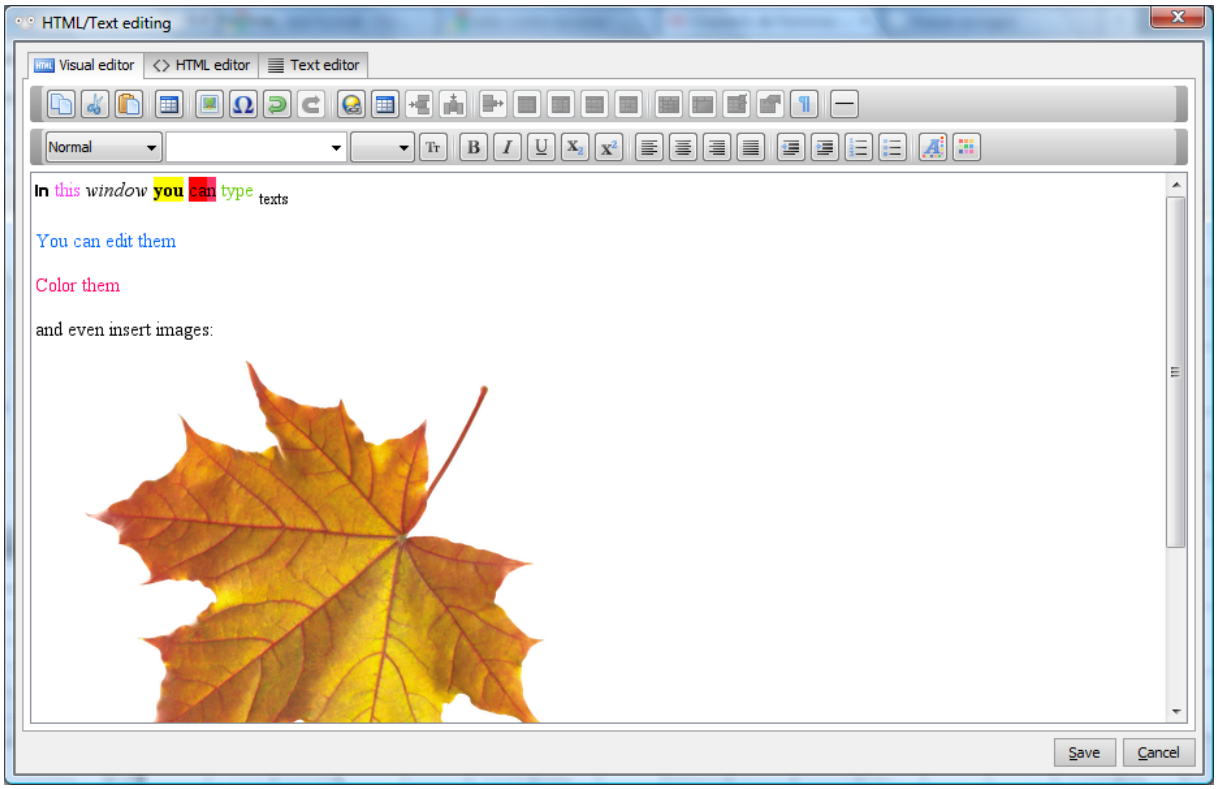


Figure 69. HTML editor.

The toolbar consists of ***the upper*** and ***the lower*** line.

The upper line of tools includes the instruments for:

- working with clipboard copying and pasting);
- inserting different objects (images, tables, symbols, links)
- cancelling/repeating the operations;
- copying text formatting;
- creating and editing tables;
- zooming;
- drawing figures.

The lower line of tools is designed for formatting text and is used for setting the following characteristics of the text:

- header type;
- font;
- font size;
- text style (**bold**, *italic*, underlined);
- subscript/superscript mode;
- horizontal text alignment;
- the size of indents;
- numbered/bullet list;
- font coloer;
- background color.

After creating the text in the ***HTML editor*** you can modify them right on the edit area. Double click on the object to edit the text contained in it. On figure 70 a text-label with HTML content is shown). The text on the edit area will look as it is shown on the figure below:

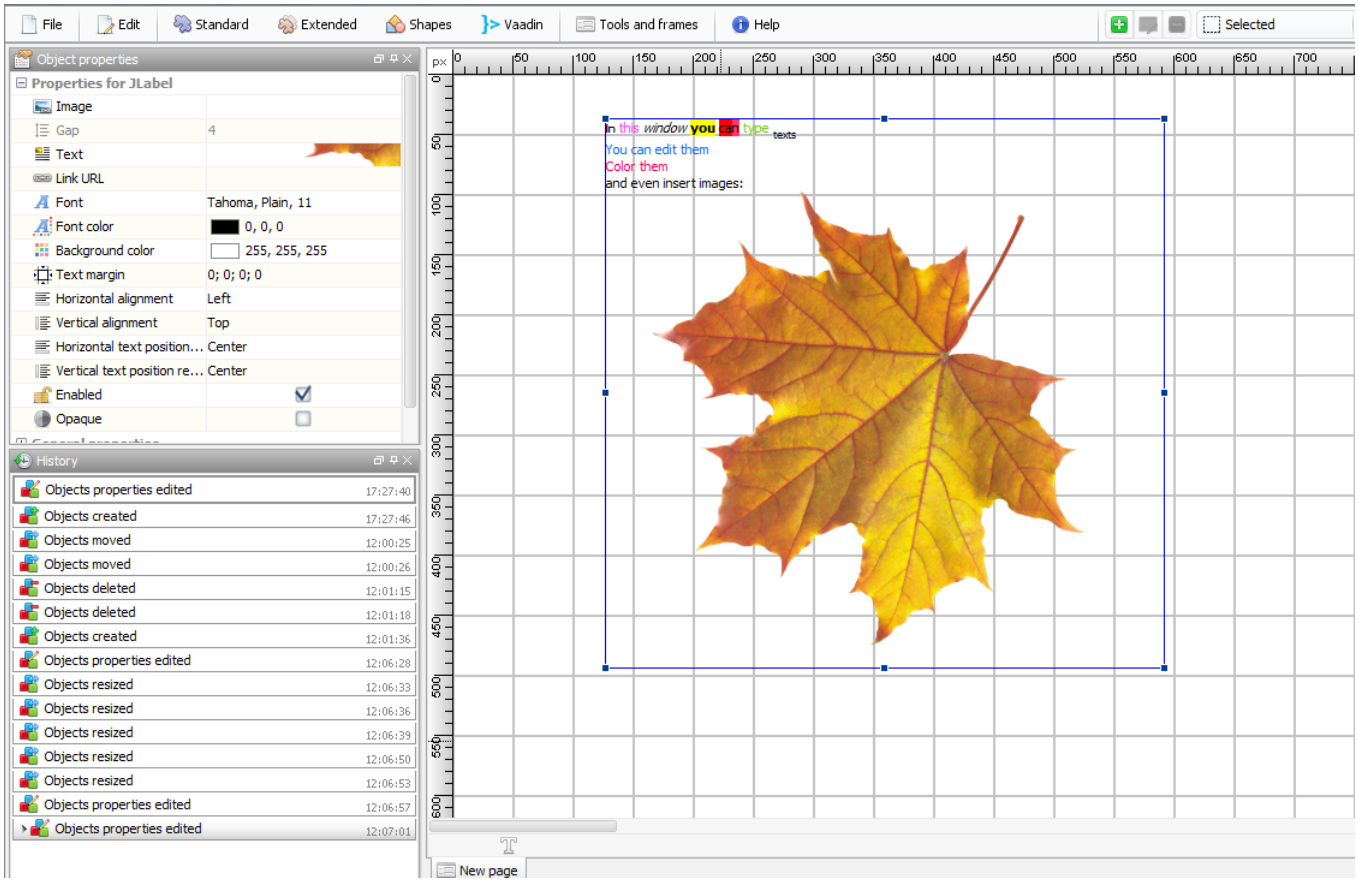


Figure 70. Modifying text on edit area.

The font of the text can be changed with the help of the standard key shortcuts:

- ***Ctrl+I*** — *italic*;
- ***Ctrl+B*** — **bold**;
- ***Ctrl+U*** — underlined

HTML-code

After editing the text in the HTML-editor you can view the automatically generating HTML-code in the appropriate tab.

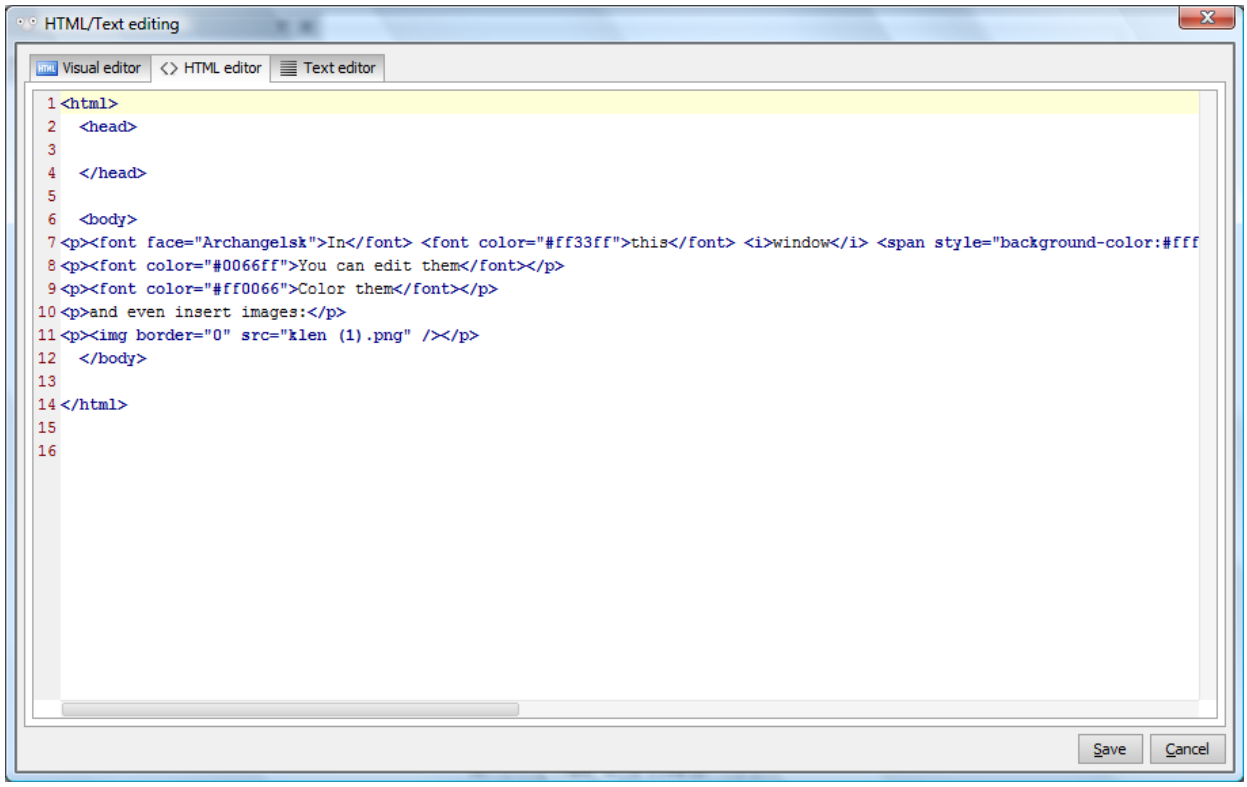


Figure 71. HTML-code

You can edit the HTML code manually. Switch to the ***HTML-code*** tab and enter the necessary text. In the ***HTML-editor*** tab you can see how the texts looks like after the changes you made.

Text editor

If you want to create a text without HTML formatting, you can use the Text editor tools. Texts previously edited in the HTML-editor will be displayed as plain text:

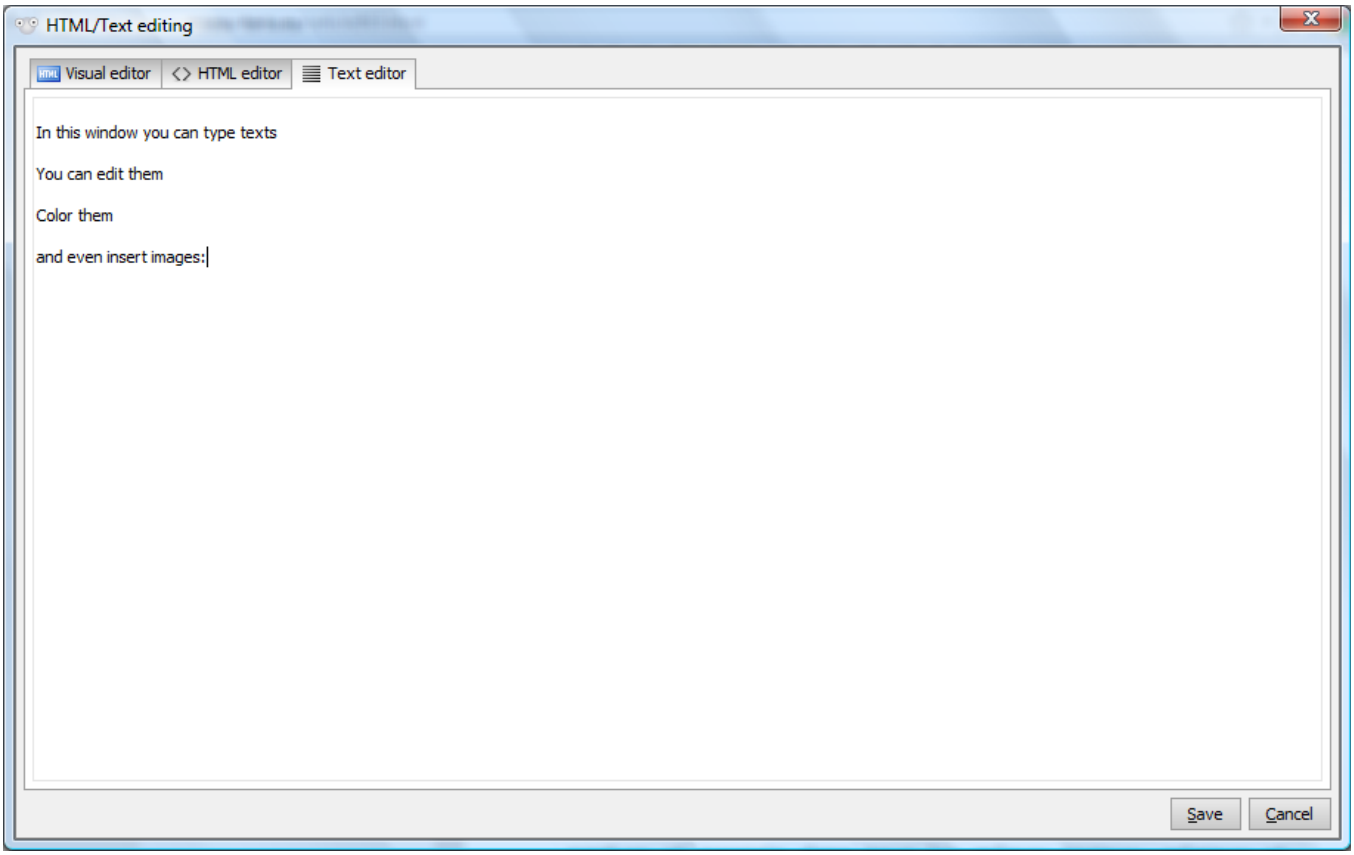


Figure 72. Text editor tab.

Texts created in this tab will not be HTML-formated.

When editing text in the text editors do not wrap the words by pressing ***Enter***. If the text was wrapped, all lines will be merged in one.

4.2.2.2. Image selection tool

This tool allows to select an image:

- from the file system;
- from the previously used images;

- from screenshots
- from the set of icons;
- from the images found by Google.

To open the image selection tool enter the object properies, select **Image** and press the button located on the right of the text. You can also open this tool by double-clicking on the image on the edit area. Then the following window with three text should open:

- **For file** — a standard system window:

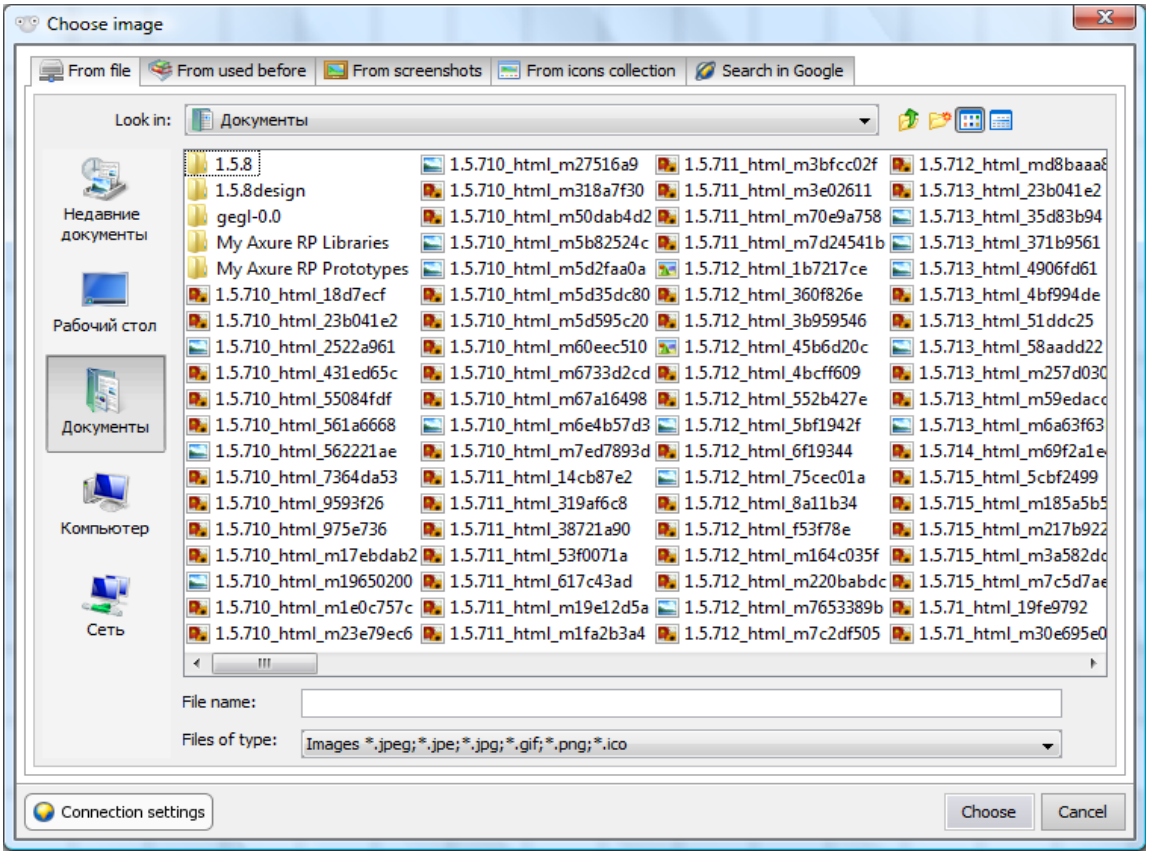


Figure 73. Selecting an image from the file system

- **From used before** —the window displaying the thumbnails of previously used images;

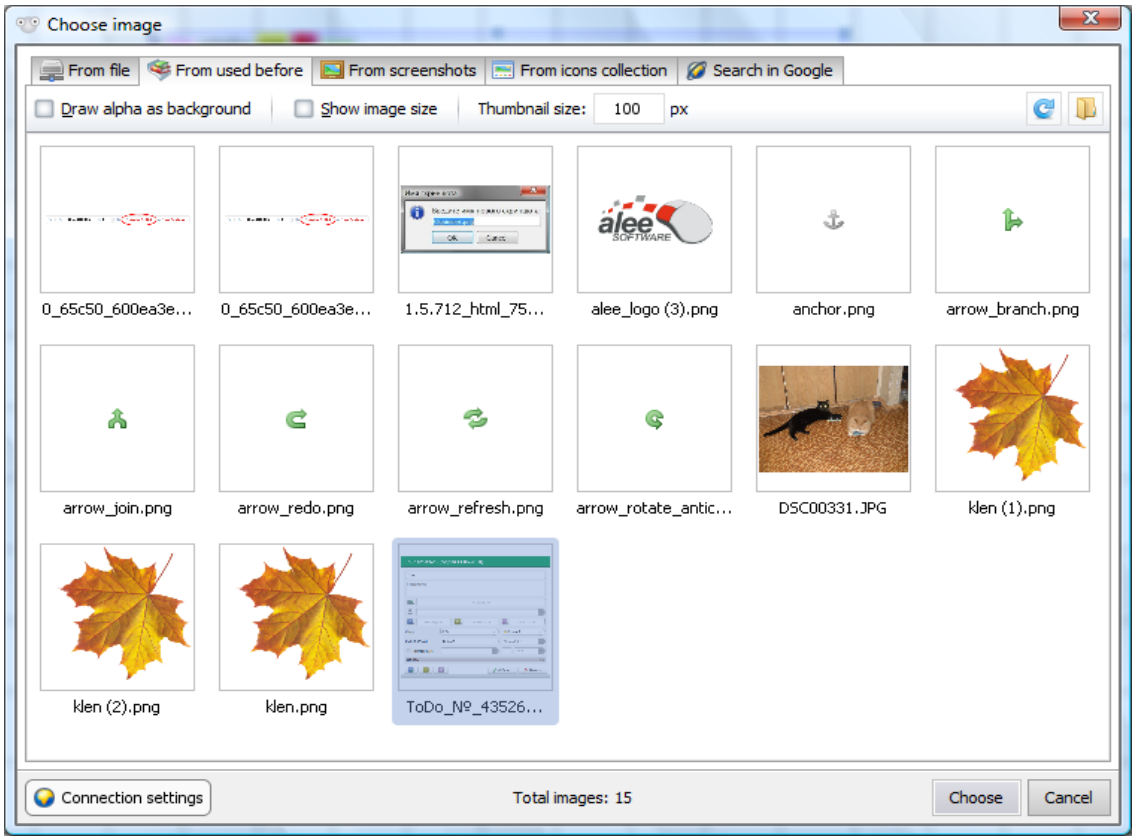


Figure 74. Selecting an image from the previously used ones

By selecting/deselecting the checkbox ***Draw alpha as background*** you can enable/disable the displaying of the alpha layer.

To change the size of the thumnails enter the necessary parameters in the field ***Thumbnail size***.

The checkbox ***Show image size*** enables/disables the dipslaying of the borders of images.

It contains the following information:

- ***Name*** ;
- ***Image type*** ;
- ***Image size*** .

➢ **From screenshots —** this window contains the screenshots made with the help of the screenshot making tool:

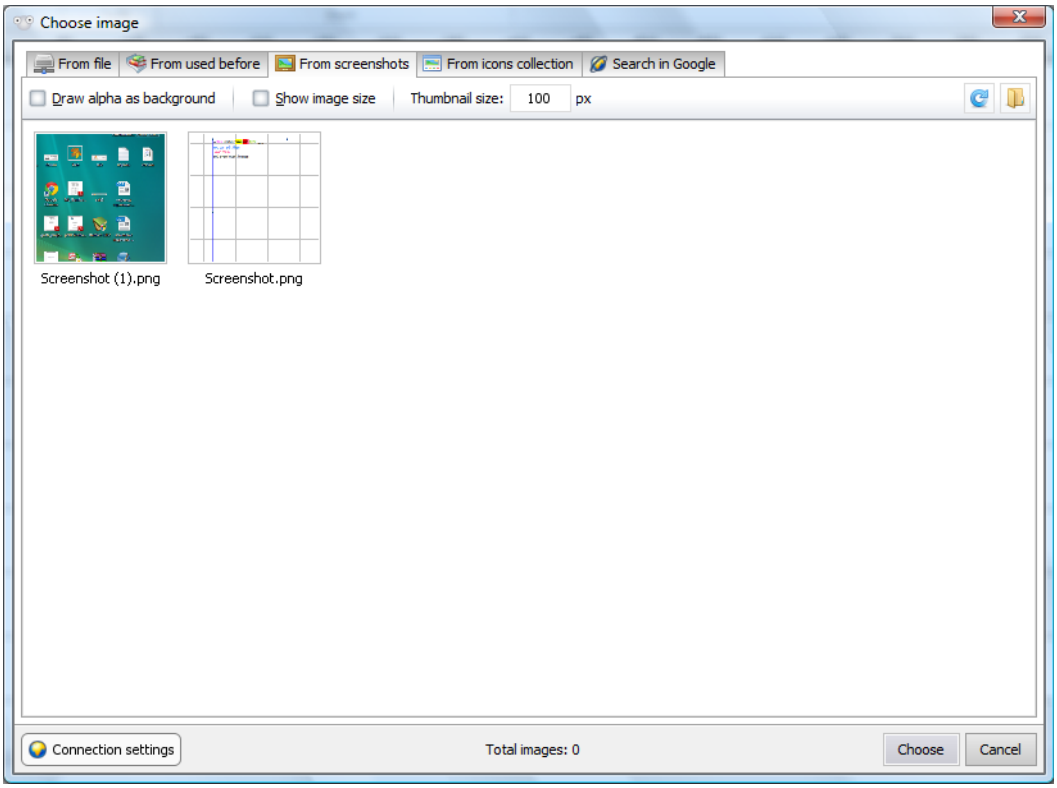


Figure 75. Selecting an image from the screenshots

- **From icons collection —** the window containing a set of icons available with the application :

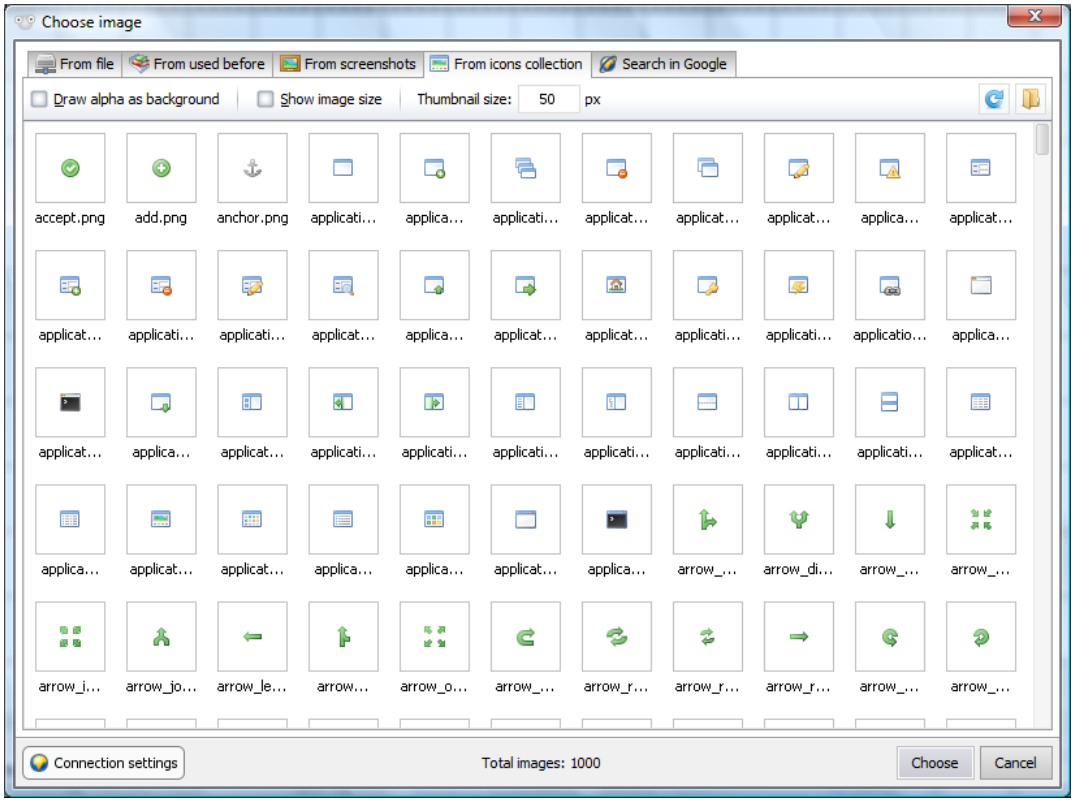


Figure 76. Selecting an image from the icon collection

- **Search in Google —** the window allowing to select an image from those found by Google:

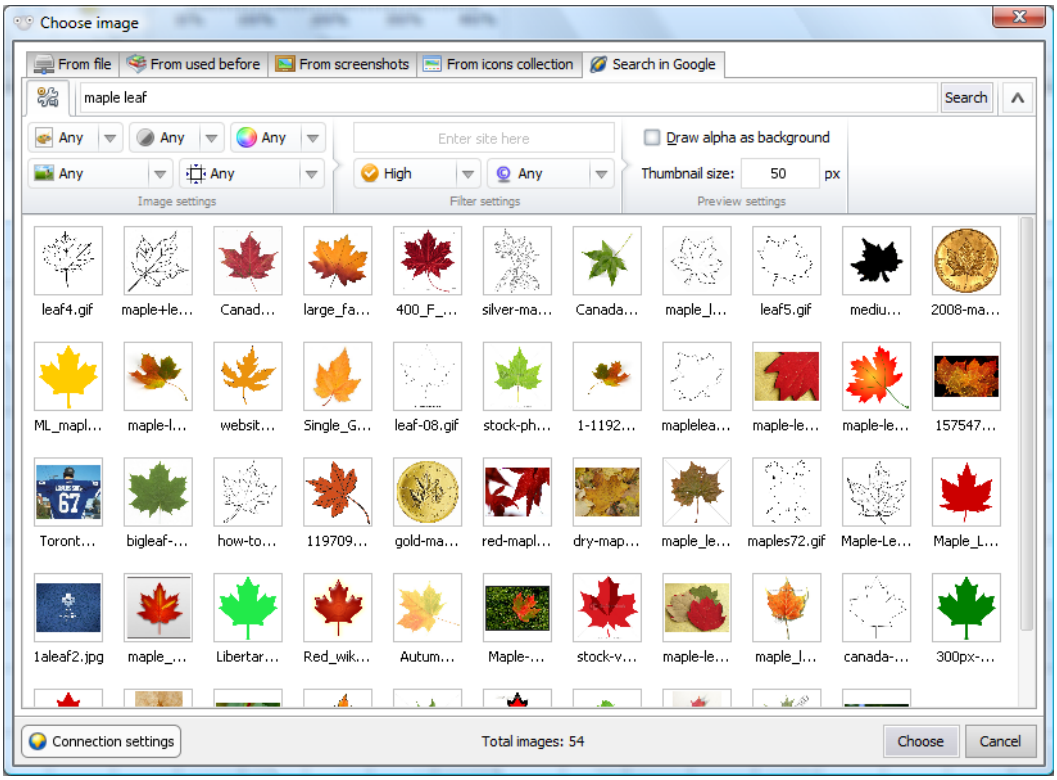


Figure 77. Selecting an image from those found by Google

Different parameters for the search can be set up:

Image settings:

1. Image file format (PNG, JPEG, GIF, any)
2. Grayscale or Colored image (or any)
3. The main color of the image (black, gray, white, red, green, blue, orange, brown, pink, purple, teal yellow)
4. Type of image content (Faces, photos, clipart, lineart, any)
5. Image size (Icon, small, medium, large, extra large, huge, any)

Filter settings:

1. Site address for search;
2. Filtration level (high, moderate, none)
3. Image license type (Any, Public Domain, Attribution, Share-alike, Noncommercial, No Derivate Works)

Preview settings:

1. Draw alpha as background
2. Preview size (in pixels)

4.2.2.3. Editing tabs

The editor for tabbed panels allows to:

- add and remove tabs by pressing the buttons and ;
- change the position of the tabs by pressing the buttons and ;
- add images to the headers of the tabs by pressing the button ;
- remove images from the headers of the tabs by pressing the button ;
- lock/unlock the tabs by pressing the button ;
- rename the tabs by double-clicking on them.

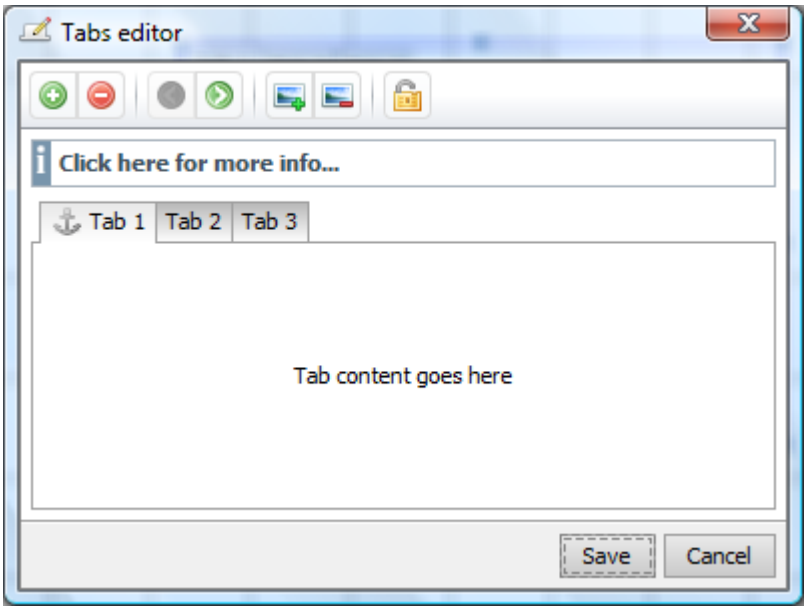


Figure 78. Editor for tab panels

The text of the tab headers can be changed without launching the editor. Double-click the header to edit the text contained in it.

4.2.2.4. Table editor

The editor for tables allows to:

- add and remove rows and columns by pressing the buttons and ;
- to change the position of the elements of the table by pressing the buttons , and , ;
- add images to the cells of the table by pressing the button ;
- remove images from the cells by pressing the button ;
- rename the columns of the table by double-clicking on them;
- permit/prohibit the editing of the cells by selecting the appropriate checkbox;
- select one of the following 6 tab types:
  - *Text;*
  - *Integer;*
  - *Floating;*
  - *Date;*
  - *Boolean;*
  - *Icon*

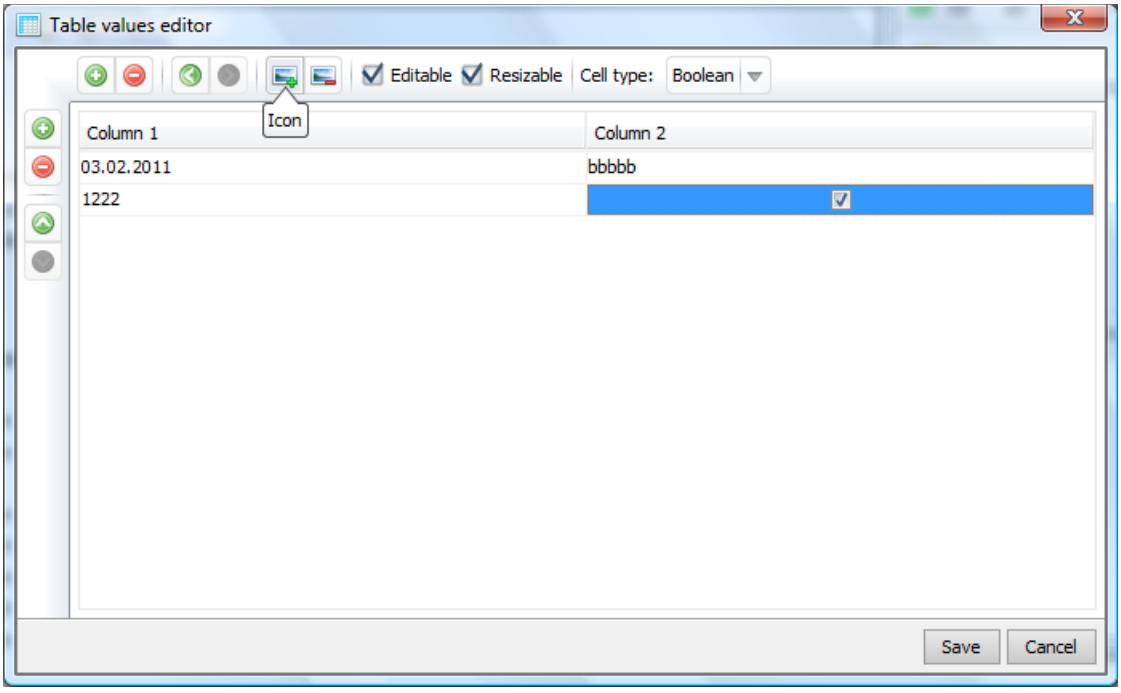


Figure 79. Table editor

4.2.2.5. Tree editor

The tree editor allows to:

- add and remove tree elements by pressing the buttons and ;
- change the level of elements by pressing the buttons and ;
- move elements up and down by pressing the buttons and ;
- to add images to the tree elements by pressing the button ;
- remove images by pressing the button ;
- rename the tree elements by double-clicking on them.

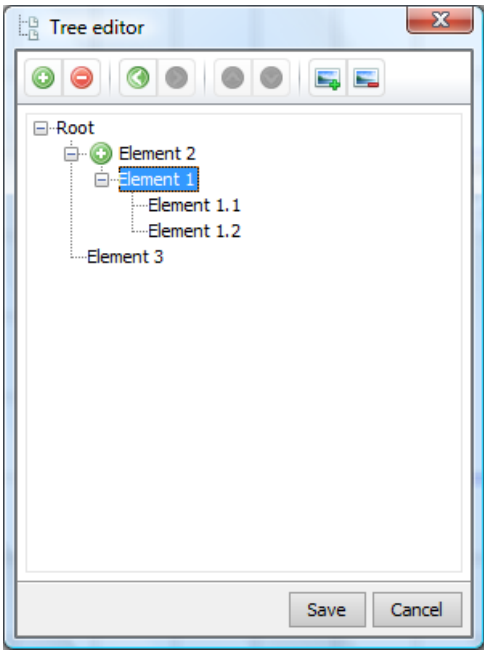


Figure 80. The tree editor

4.2.2.6. List editor

The list editor allows to:

- add and remove elements by pressing the buttons and ;
- to change the position of the elements by pressing buttins and ;
- to change the background of the elements of the list by pressing the buttons and ;
- rename elements of the list by double-clicking on them;
- to select images by double-clicking on the ***Icon*** field

- to set up the position of the text (horizontal or vertical) in relation to the image.

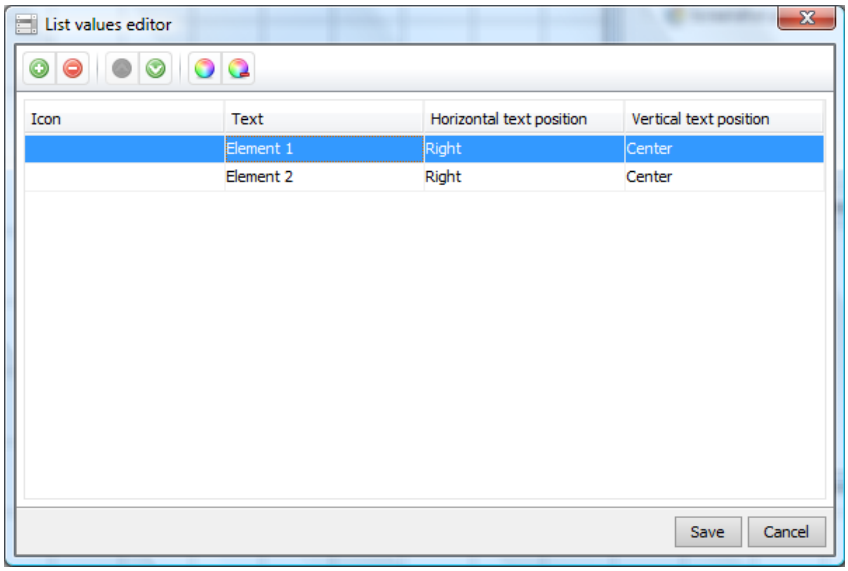


Figure 81. The list editor

4.2.2.7. Checkbox editor

The checkbox editor has the same functions as the list editor. It also allows to

- *lock / unlock* list elements by selected the checkbox enabled ;
- make the checkboxes selected/deselected by default by editing the appropriate columns

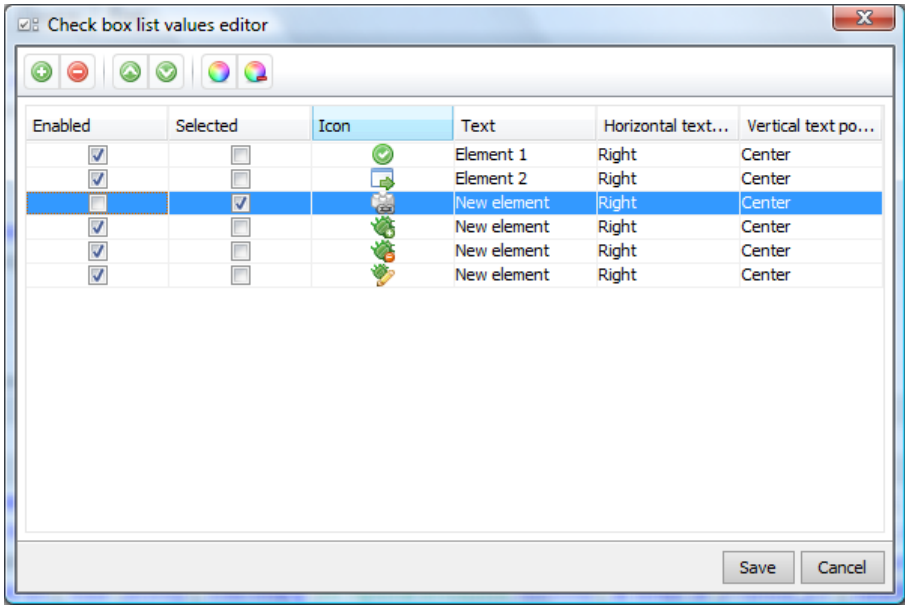


Figure 82. The checkbox editor

4.2.2.8. Editing popup menus

The popup menu editor allows to

- add and remove the items by pressing the buttons and ;
- change the order of items by pressing the buttons and ;
- select a type of items from the following options :

  separator;

  text;

  checkbox;

  radiobutton;

- make an item selected by default by setting the flag ***Selected*** (for checkboxes and radiobuttons only);
- enable/disable the menu items (the ***Enabled*** column);
- set mnemonics for menu items by pressing ***Alt+mnemonic***;
- create submenus for menu items;
- change the text of menu items using the HTML-editor;
- add images to menu items *(* the ***Icon*** column *)* ;
- create keyboard shortcuts for menu items (the ***Hotkey*** column *)*.

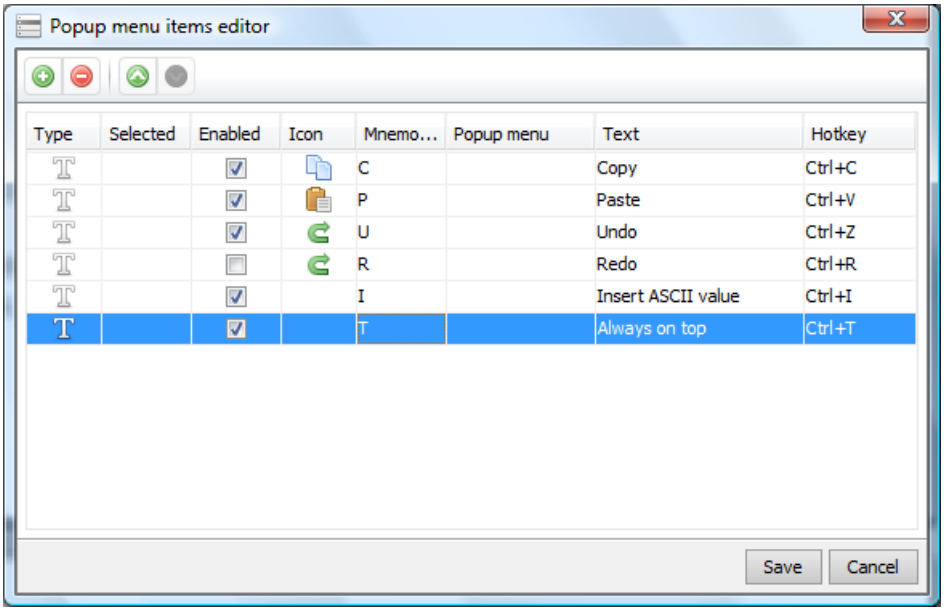


Figure 83. Pop-up menu editor

Pressing the hot keys during the preview is equal to the selection of the items.

You can see the menu with the settings as shown above on the figure below:

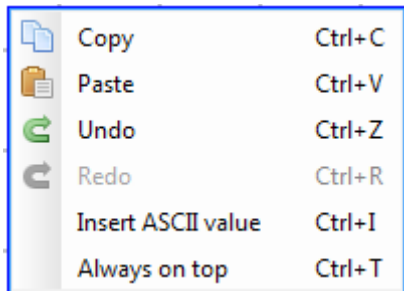


Figure 84. A pop-up menu

If you need to edit the text of the menu items (without changing their format), you can do it on the edit area by double-clicking them:

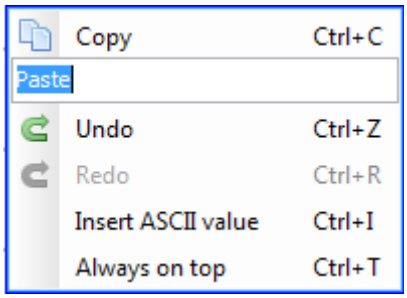


Figure 85. Editing pop-up menu items

You can edit the item even if it contains HTML-text:

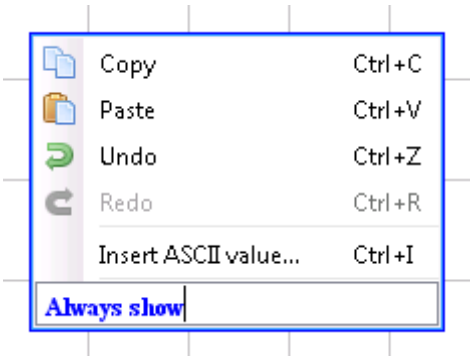


Figure 86. Editing HTML -text in popup menu items

You can add a submenu to any of the items by hovering it and opening the context menu by a right-button click:

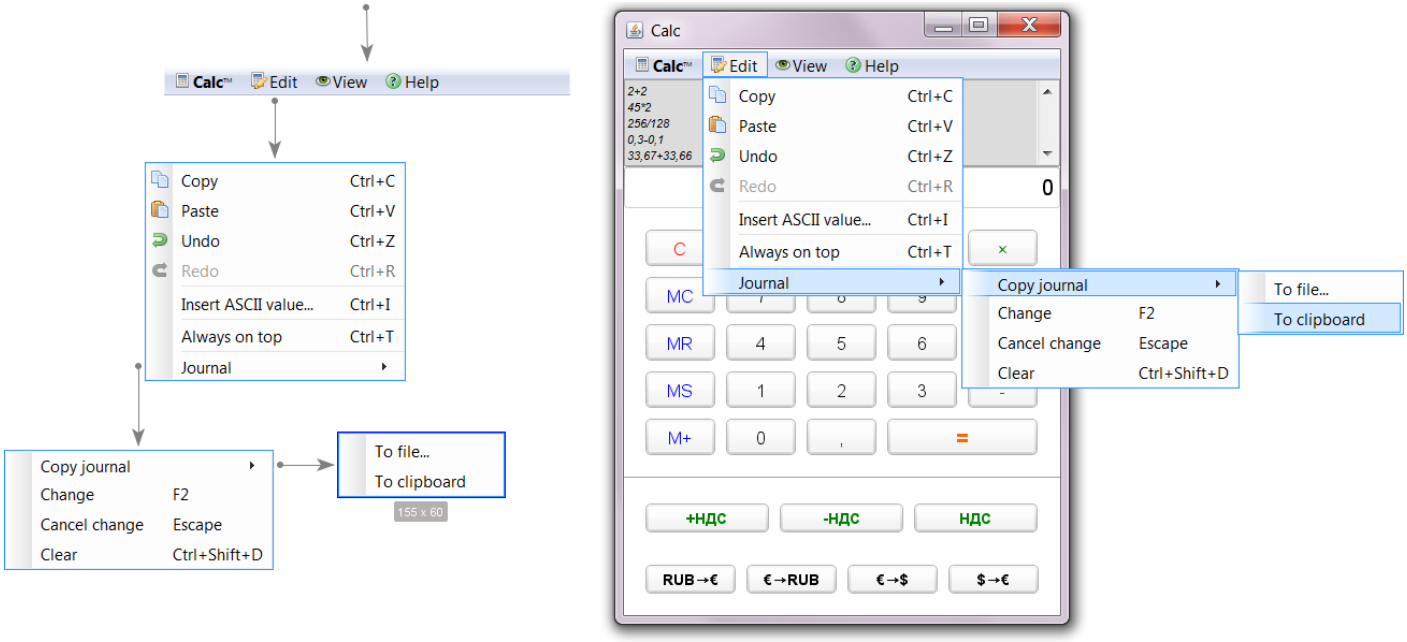


Figure 87. Adding submenus to popup menu items

4.2.2.9. Menu editor

The menu editor allows to:

- add and remove the items by pressing the buttons and ;
- change the order of items by pressing the buttons and , ;
- enable/disable the menu items (the ***Enabled*** column);
- set mnemonics for menu items by pressing ***Alt+mnemonic***
- select popup menus for each menu items
- edit the text of menu items (including HTML texts)

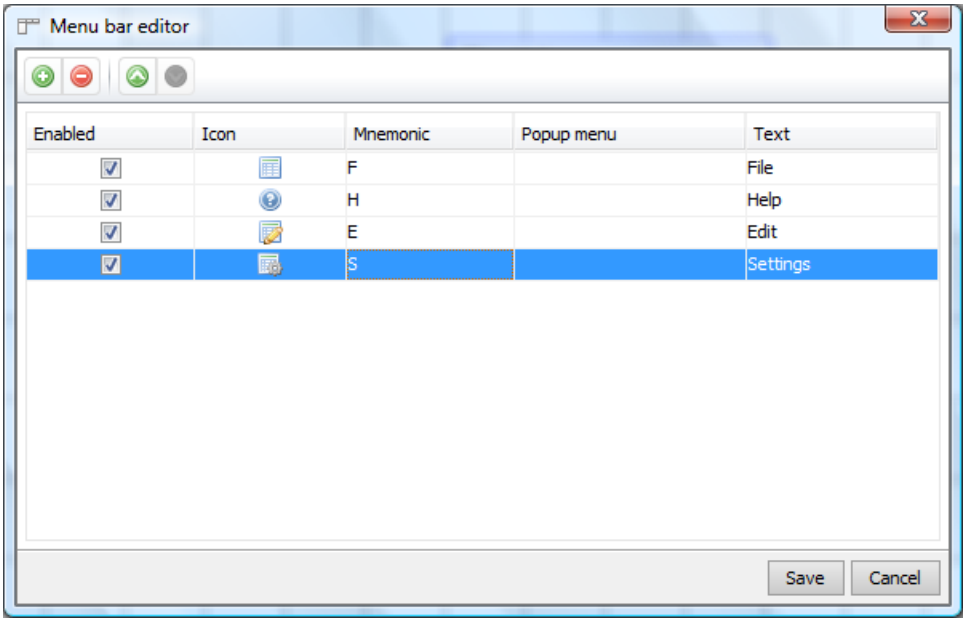


Figure 88. Menu editor

If you need to edit the text of the items (including HTML texts) you can do it right on the edit area by double-clicking them:

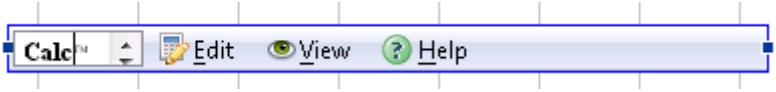


Figure 89. Editing HTML text in a menu item

The connection between the menu item and its popup menu is marked by gray arrows:

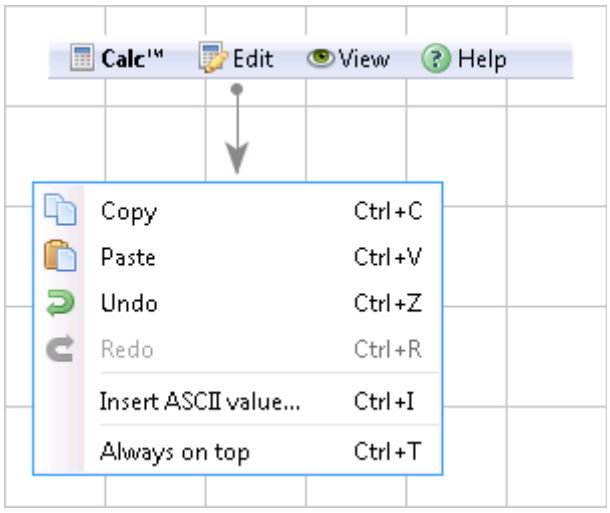


Figure 90. The connection between the menu and the popup menu

The menu with popup menus looks as it is shown on the figure below:

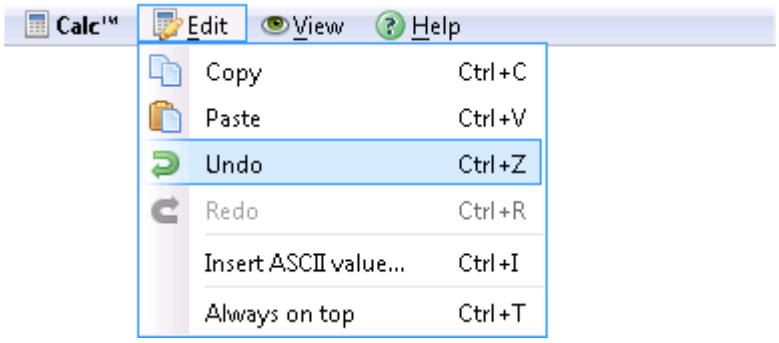


Figure 91. Menu

A popup menu can be removed from the item in the main menu. To remove the pop up menu approach the mouse cursor to the item, press the right button and select the item ***Remove popup menu...*** in the context menu.

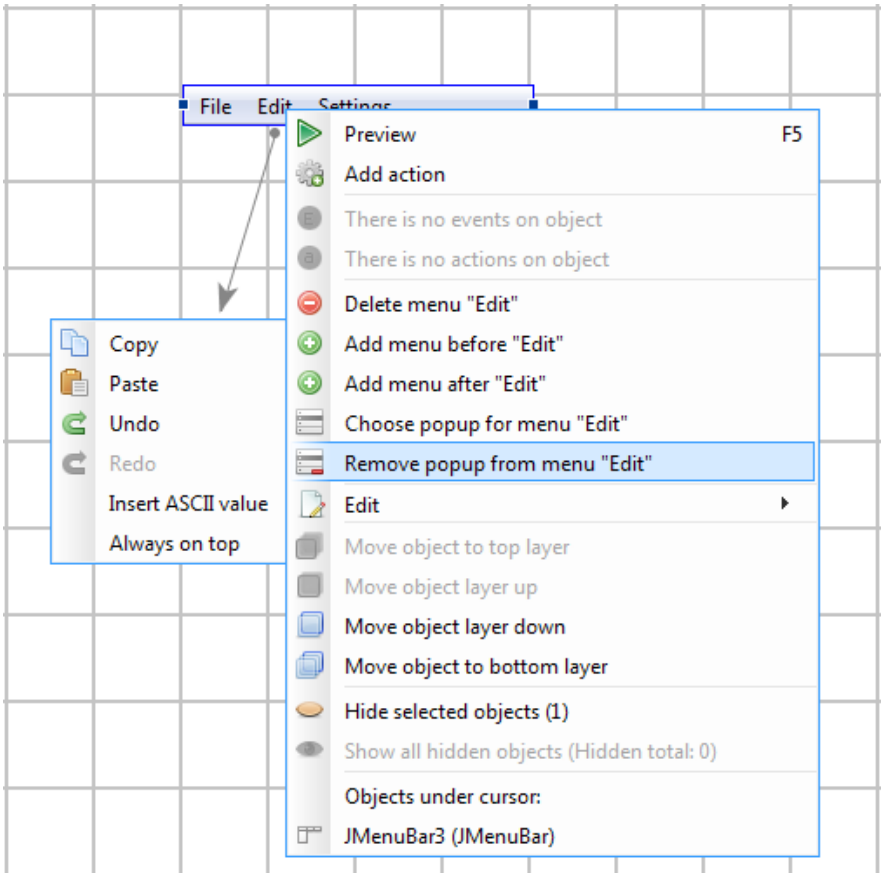


Figure 92. Removing a popup menu.

To underline the mnemonic symbols press the ***Alt*** when viewing. To select the menu item press the key with the underlined symbol.

If the text of the item was created in the HTML editor, the mnemonic will not be underlined.

4.2.2.10. Selecting in a cursor

In the cursor selection window you can choose a cursor from :

- standard system cursors;
- sets of cursors.

The standard cursors have the design set up in the operating system in the settings for mouse cursors.
In the sets of cursors you can select a cursor in one of the following styles:

- Blue ;
- Yellow ;

- Hand;
- Static ;
- Arrows ;
- Cross ;
- Tools ;
- Windows Aero.

It is recommended to use standard cursors matching the style of the operating system in general. This will allow you to create realictic prototypes.

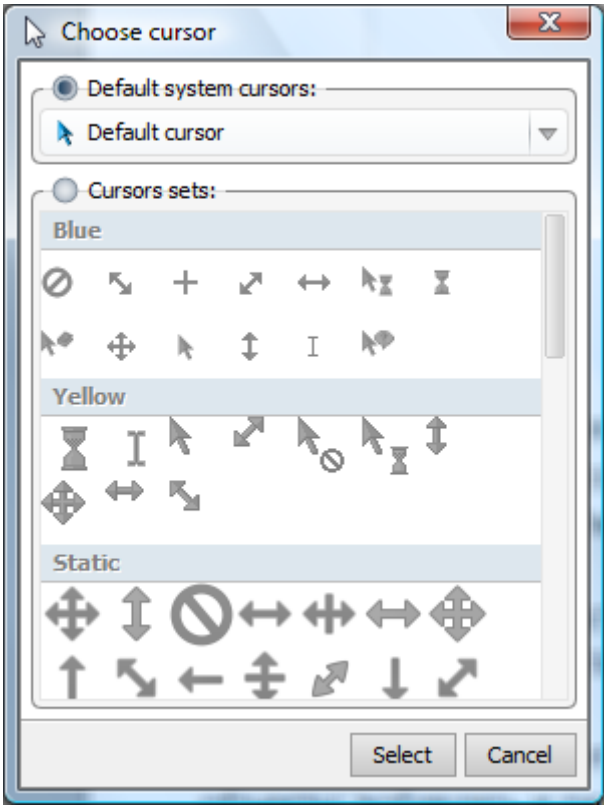


Figure 93. Selecting a cursor

4.3. Layers

The ***Layers*** are the main tool used for creating interfaces.
This tool is indipensable for editing interfaces.

The ***Layers*** tool provides information about the location of the objects, their hierarchy and actions connecting them.

With the help of this tool you can show and hide objects, remove them, add and edit actions.

Thus the object located on the layer with the greatest number is displayed above all others and the object with the smallest number is located below all others.
To open the Layers tool select the menu item **Tools and Frames→ Frames Settings →Layers**.

The hierarchy of objects is represented as a tree structure:

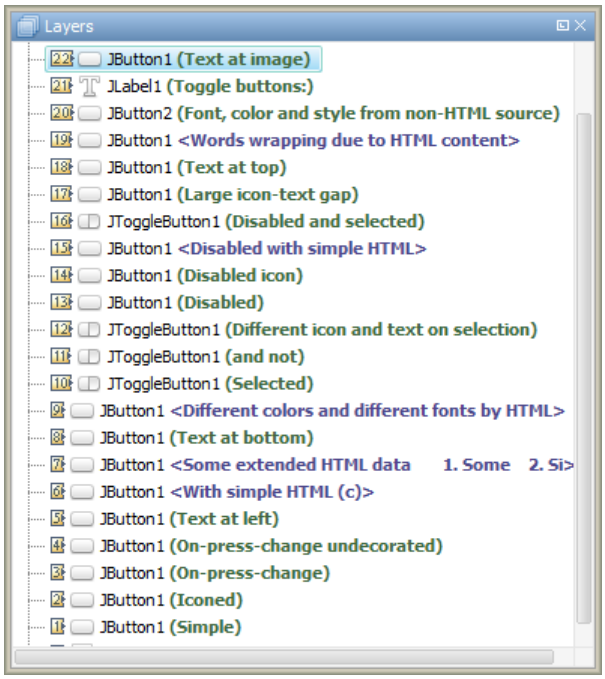


Figure 94. Layers. The tree of objects

Th tree of objects is created on the basis of connections between them . Actions and events are also included in the tree structure. The tree allows to visualize the structure of the interface. The tree-like structure is used for the representation of interfaces the most often.
The fashion of the representation of the objects can be changed. Approach the cursor to the ***Layers*** panel and press the right mouse button:

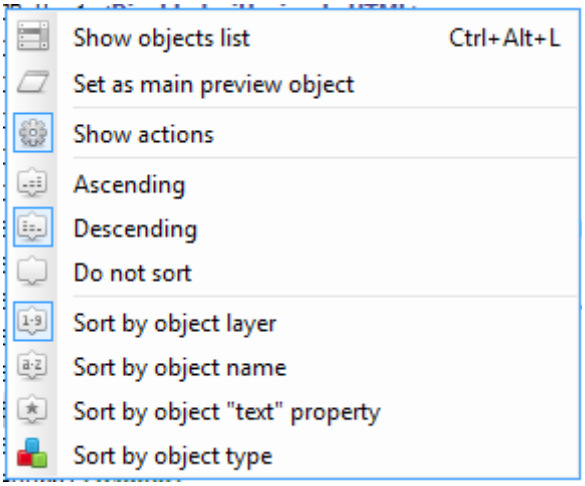


Figure 95. Context menu for the layers

Select the item **Show objects list**. The content of the panel will be displayed as shown below:

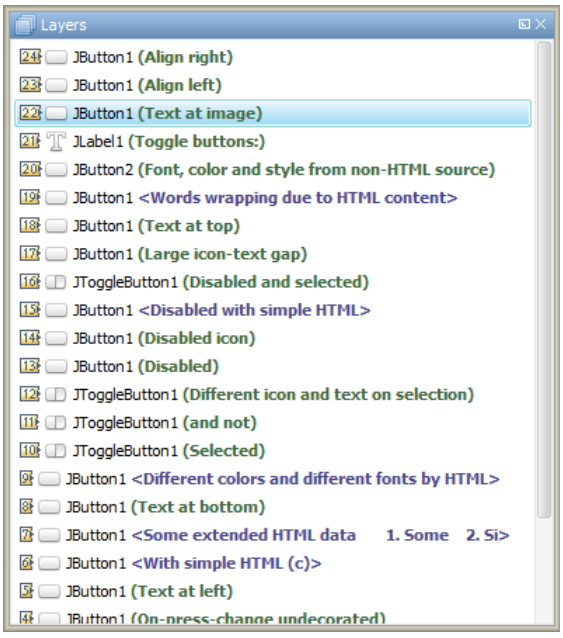


Figure 96. The list of objects

The names of the objects as well as those of the actions can be edited. To rename an object or an action select it and press ***F2***. Objects in the tree can be renamed by triple click upon them.

The context menu

Make a right-button click on the tree to access to the context menu (рис.95)

The context menu allows to select to select the main preview object, sort objects, show and hide actions.

To select the main preview object in the project select the item **Set as main preview object in the context menu** .
To show/hide actions select the item **Show actions .**

Settings for sorting:

- Sorting order:
  - ***Ascending*** sorting;
  - ***Descending*** sorting;
  - ***Do not sort*** .
- Property for sorting:
  - ***Sort by object layer***;
  - ***Sort by object name*** ;
  - ***Sort by the text property*** ;
  - ***Sort by object type*** .

4.3.1. Tools for working with layers

Tools for working with layers are located in the menu **Edit→Change object layers.** The description of the tools is given in the table below.

Table 31. Tools for working with layers

Icon	Tool	Description
	Bring forward	Raises the object one layer up
	Bring back	Moves the object one layer down
	Move object to the top layer	Moves the selected object to the top layer

	Move object to the bottom layer	Moves the selected object to the bottom layer
	Hide layer	Hides the selected layer
	Show layer	Shows the selected layer
	Select all layers	Selects all visible layers
	Deselect all layers	Allows to undo the selection

4.4. History

The tool History allows to return to any of the previous stages of the project.

Every time you make an operation in the project a new entry is added to the ***History***.
If you add, for instance, a new element to the project and then change its properties, these operations will be listed in the ***History***. If you select one of the entries, all the changes brought to the project after the appropriate operation will be abolished. You can continue the work from the selected project state.

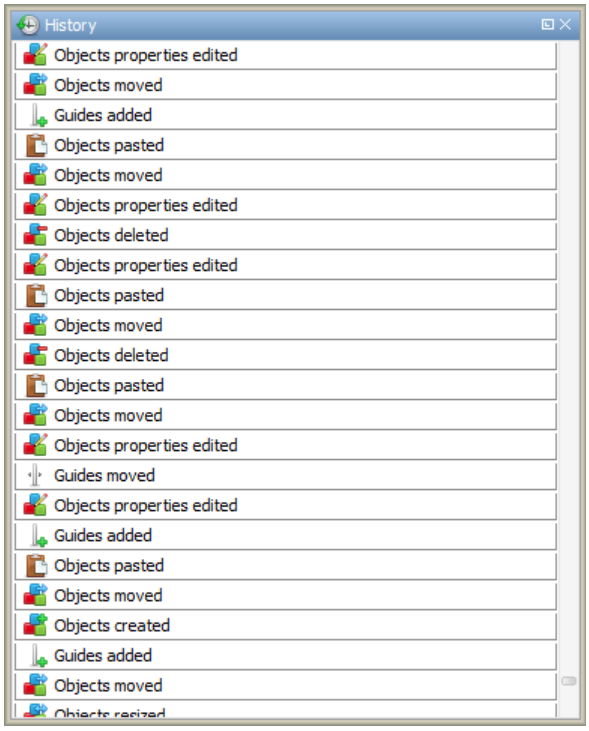


Figure 97. The history of the project

The number of entries saved in the ***History*** can be limited by the user. When this number is exceeded, the entries are deleted.

New entries are added to the end of the list. Thus the entries concerning the earlier operations can be found in the beginning of the list, the entries about the newer ones – in the end.

For each page of the project a separate ***History*** list is created. If the number of the entries in the list is too great, the size of the project file will increase. If there is no need to save the information about all entries, the ***History*** list can be cleared

- open the context menu by a right-button click on the ***History*** panel;

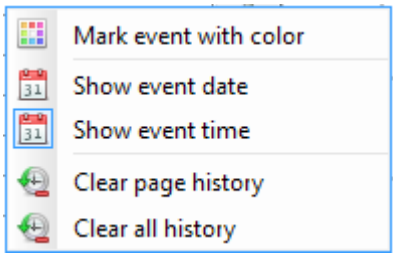


Figure 98. History context menu

- select the item **Clear page history** .

The ***History*** list for the selected page will be cleared.
To clear all history lists select the item **Clear all history**

The entries in the history can be marked with color. The colors can be changed :

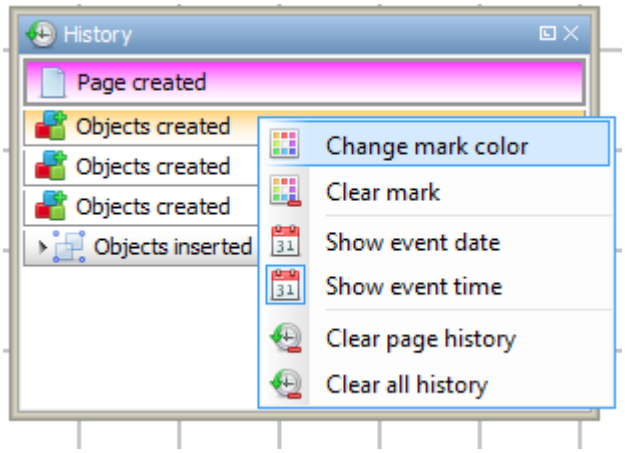


Figure 99.Colored history entries

The context menu also allows to display the date and the time for each operation in the project. Select the items **Show event date** and **Show event time.**

Return to the previous state

There are two ways of returning to the previous state of the project:

- Pressing ***Ctrl+Z***. Each time the keys are pressed a change in the project is abolished.

- A left-button click on the entry related to the state to which you would like to return.

The repeated of abolished operations

If you made an error when abolishing an operation, there are two ways of correcting it:

- Pressing ***Ctrl+Shift+Z***. Each time you press the keys the abolished operation is repeated.
- A left-button click on the entry related to the stage to which you would like to return.

NB: If a new operation is made after canceling several operations, the entries related to the canceled operations will be deleted. The return to the canceled operations will become impossible.

4.5. Templates

A template is a ready-made mockup of a frequently used object.
Using templates can make the creation of prototypes easier and faster, especially when different parts of the prototype contain similar objects.

Templates can be created for all types of objects.

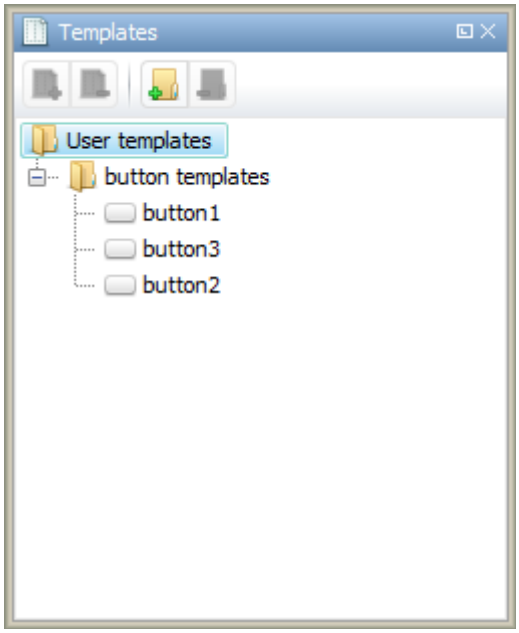


Figure 100. User templates

The templates are represented as a tree-like structure. You can create and delete folders for keeping templates.

Tabl3 32. Tools for working with templates

Icon	Description	
	Create new template	Allows to create a new template
	Remove template	Removes the selected template
	Create new folder	Creates a new folder
	Remove folder	Removes the selected folder

To create a template do the following:

- ➔ add an object to the edit area;
- ➔ modify the object;
- ➔ press the button ***Create new template***
- ➔ enter the name of the template.

To use a template in the project drag it to the edit area.

4.5.1. Importing/exporting templates

The templates created by the user are stored in the folder ***/templates/data*** located inside ***GUI Machine*** install folder. Each template is stored as a separate XML file. The images for each template are stored in separate folders. Thus the templates are not tied to a concrete project; they can be used in any project you like.

To import the templates to another computer or to another folder just copy the the folder ***templates*** to the new GUI Machine install folder.

5.Working in GUI Machine

5.1. General information

General recommendations

To insert one object into another drag it to the necessary location. The insert area will be highlighted with blue:

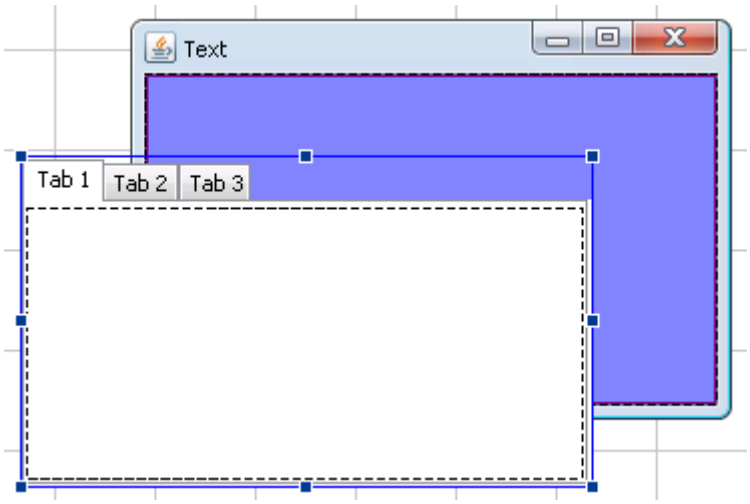


Figure 101. Inserting an object

The following objects cannot be inserted into other ones:

- ✗ Standard and Vaadin windows;
- ✗ Popup menus ;
- ✗ Timers
- ✗ Audio players
- ✗ Tray icons.

The following objects can contain other objects:

- ✔ Windows ;
- ✔ Dynamic layouts;
- ✔ Static layouts;
- ✔ Panels;
- ✔ Tabbed panels;
- ✔ Split panels;
- ✔ Collapsible panels .

Use the templates. It can help you to save time and make prototyping easier.

Use ***hot keys***. In some situations it is the best way to access to necessary operations.

Use context menus. It also allows to perform some operations faster.

Use ***placeholders.*** Add a placeholder to the edit area. Insert it to the location where you are going to place an object. The are two ways to select an object to be replaced by the placeholder:

- ➢ Click on the property ***Object to be replaced*** and select an object in the tree;
- ➢ Select the item ***Object to be replaced*** in the context menu of the placeholder. The object towards which the cursor is pointed is highlighted:

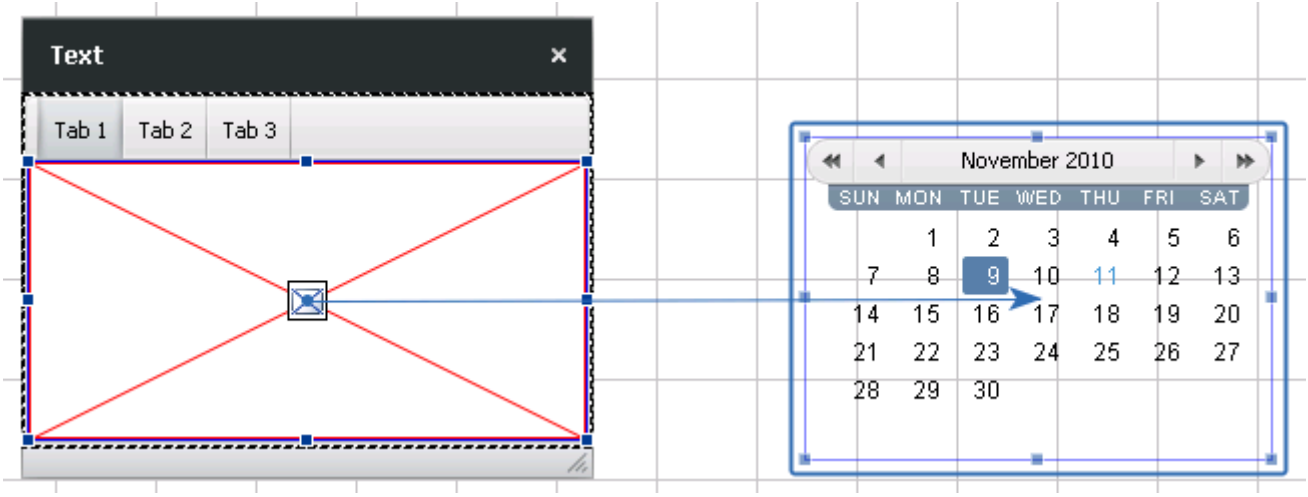


Figure 102. Selecting an object to be replaced by the placeholder

During the preview the substitute object is displayed on the place of the placeholder.
The usage of placeholders can prevent you from creating too complicated cumbersome interfaces.
If you wish to unlink the placeholder from the object it substitute, select the item ***Unlink the replaced object*** in the context menu.
It is recommended to create different interfaces on different pages. This will prevent you from overloading pages. If the page is overloaded with interface elements and actions, the navigation may become more complicated.

Getting started

Choose the working mode (section 2.4. Launch).

When making a prototype of an application it is convenient to create the large interface parts first and the work through details.

To begin prototyping add a window to the edit area first. Select is properties. Select the header style and resize it if necessary. When selecting the style of the window check into consideration the size and the resolution of the screen.

When adding new objects it is recommended to name them in accordance with their function. This will allow you to navigate a large project more easily.

Static and dynamic layouts

Layout is the framework for prototypes. All interfaces are designed on the basis of layouts.

There are ***three ways of prototyping*** in ***GUI Machine:***

- prototyping with *static layouts*;
- prototyping with *dynamic layouts*;
- mixed prototyping.

Prototyping with ***static layouts*** is rather simple and fast, but prototypes created in such a way are not interactive.

Static layouts can be used when the goal of prototyping is to create a set of screenshots. When such a prototype is previewed, the objects remain immobile. Static layouts cannot be lined, so it is recommended to use guidelines and operations of aligning.
Prototypes created with *dynamic layouts* are lively and realistic. This way of prototyping is recommened if you want to simulate the work of a real program.

In *mixed prototyping* both static and dynamic layouts are used. This is the optimal way of creating prototypes but it requires a certain experience of working with GUI Machine.

5.2. Working with static layouts

A static layout can contain several objects without ruling. To create an interface enter the necessary objects into the layout. If an object having a great size is inserted, the layout will be increased automatically.

If the objects in the layout are not displayed correctly, rearrange them with the help of the ***Layers*** tool.
The possibility of adding actions to static layouts is limited. A possible solution is inserting a dynamic layout into a static one.

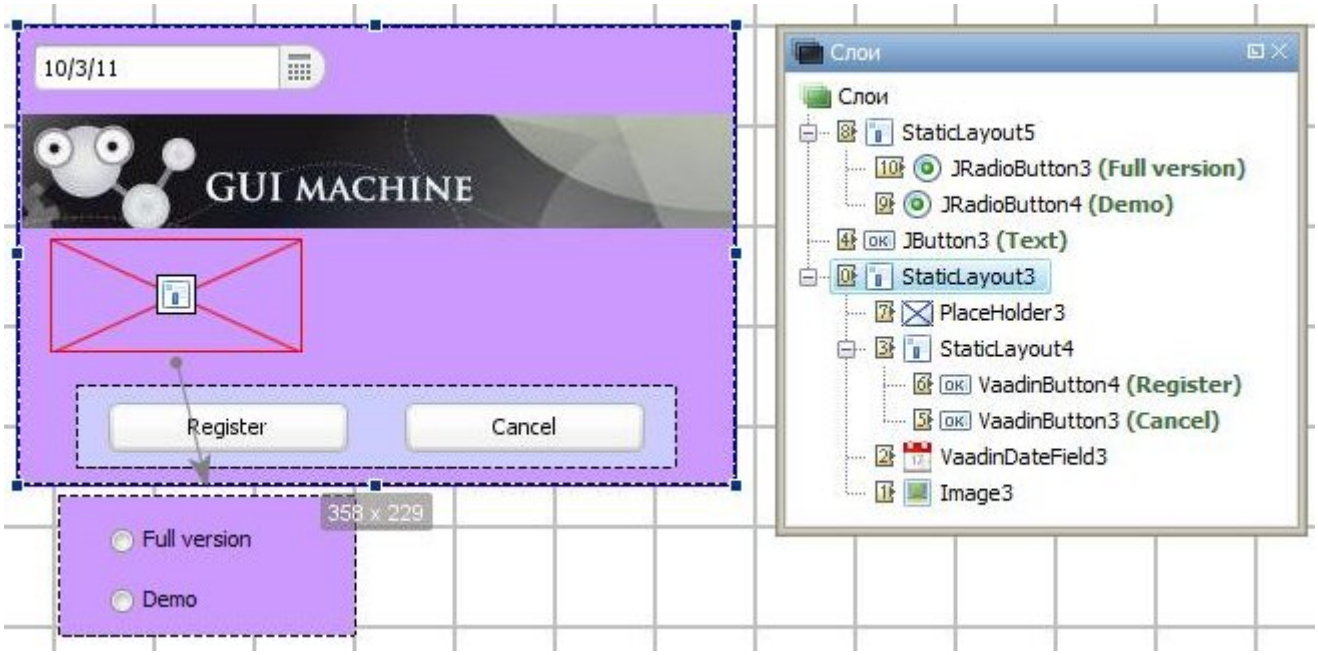


Figure 103. An interface based on a static layout

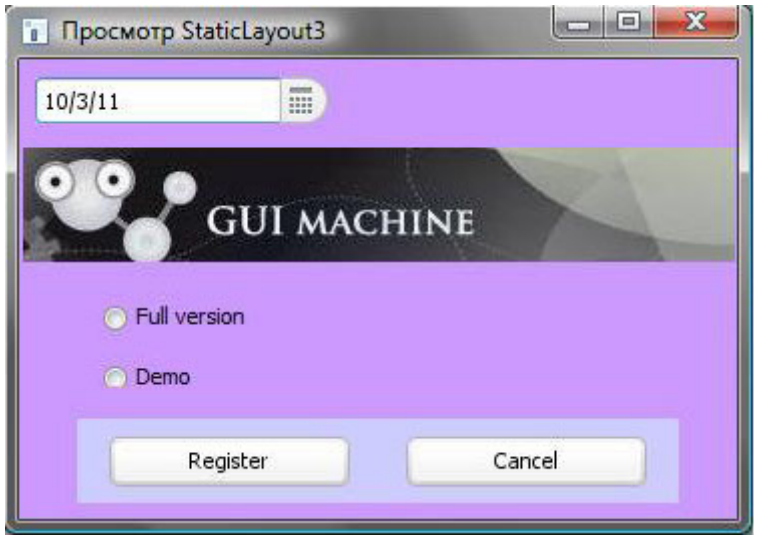


Figure 104. A static layout interface being previewed

5.3. Working with dynamic layouts

5.3.1. Ruling

Ruling allows to divide a dynamic layout into several rectangle cells.

Select the layout and press the button ⊞

- If you press the button under the layout a column is added;
- If you press the button on the right of the layout a row is added.

To remove a column or a row press the button ⊟.

NB: when removing a row or a columns all objects inside it are also removed.

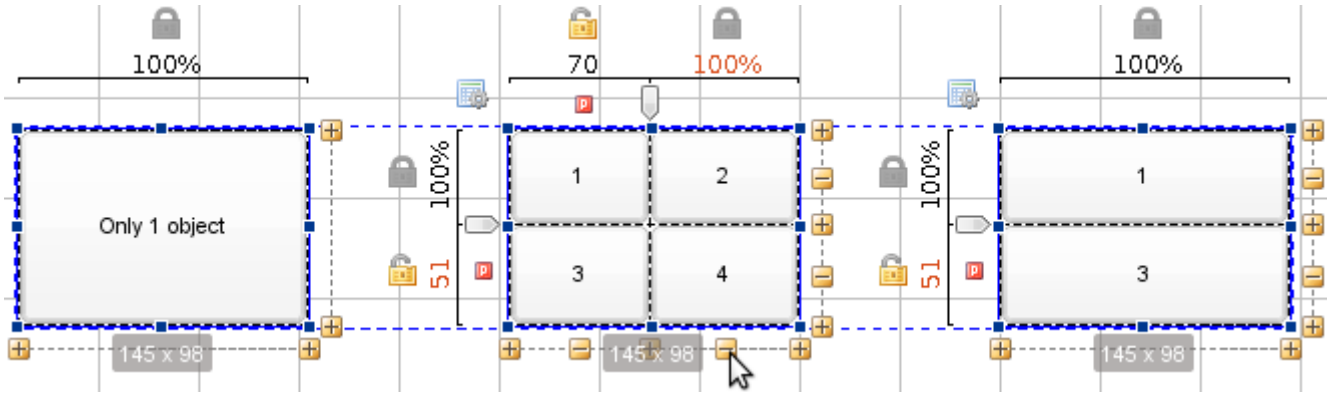


Figure 105. Ruling a layout

5.3.2. The size of cells

The size of each cell can be set by moving the slider:

- in ***pixels ( )*** ;
- fit to the optimal size of an object inserted into a layout cell— ***Preferred size ( )*** ;
- in percentage of the free layout space.

The size indicated in ***pixels*** is fixed. Changes brought to the layout do not cause resizing such zones.

The size of the zone set as ***preferred size*** becomes equal to that of the object inserted into the appropriate cell. The optimal size is the size of the object at which its image, text, etc. are seen. The size of the zone indicated during the editing of the layout will be ignored. The size of the zone set as the preferred size can be changed when clearing cells or inserting a new object.

The size indicate in percentage of the free layout space, can be changed dynamically. The free space of the layout is that left after selecting the zones whose size is indicated in pixels or set as the preferred size. It is these zones that are changed when changing the size of the layout. The size of at least one zone in the layout should be indicated in the percentage of free space.

To indicate the size of a zone in percentage of free layout space press the button . The button above the last zone with the size in percentage of free layout space is blocked: .
To set the size as the preferred size press , to set the size in pixels press .

Example:

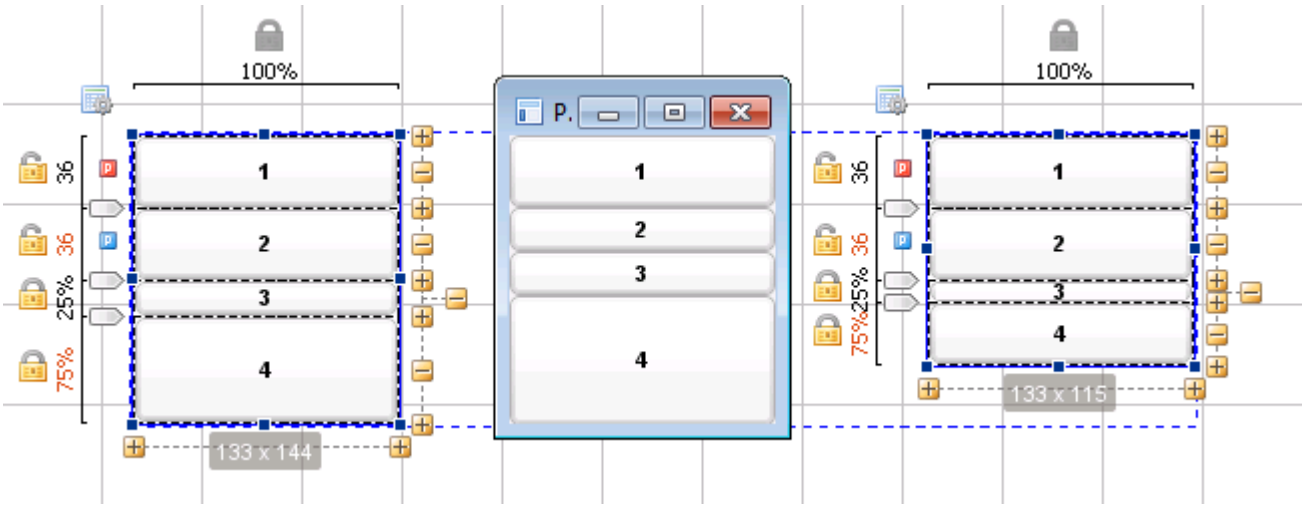


Figure 106. Type of the size of the layout cells

On figure 106 it is obvious that:

- ➔ zone 1 the size of which is indicated in pixels, was not resized during the preview
- ➔ zone 2, whose size is set as preferred size, was diminished and fitted to the size of the object inserted in it;
- ➔ zones 3 and 4, whose sized is indicated in percentage of the free layout space increased 25 and 75% of the space occupied by zone 2

The layout contains one column whose size ought to have been indicated in percentage of free layout space and cannot be changed. That is why the button above it is blocked.

From the layout on the right part of figure 106 it is obvious that after decreasing the size of the layout:

- ➔ zones 1 and 2 were not modified;
- ➔ zoned 3 and 4 were diminished 25% и 75% of the diminished part of the layout

For the exact setting of layout rows and columns select the items **Set px columns height** and **Set px rows** width in the context menu.

Enter the necessary size in pixels. The cells will be resized in accordance with the value you entered:

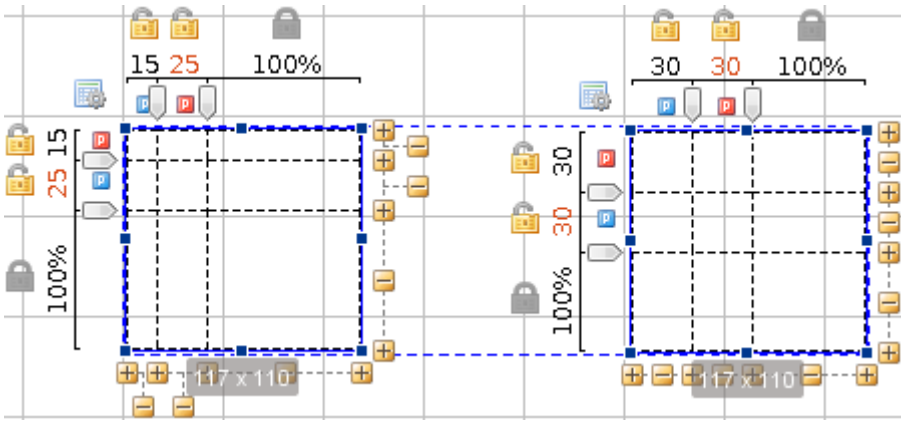


Figure 107. Identification of rows and columns

It is possible to enter the values of the size for each Nth zone divided by a comma. If you enter "10,20" the size of the zones with odd number will become equal to 10 pixels and the size of the zones with even numbers will be equal to 20 pixels.

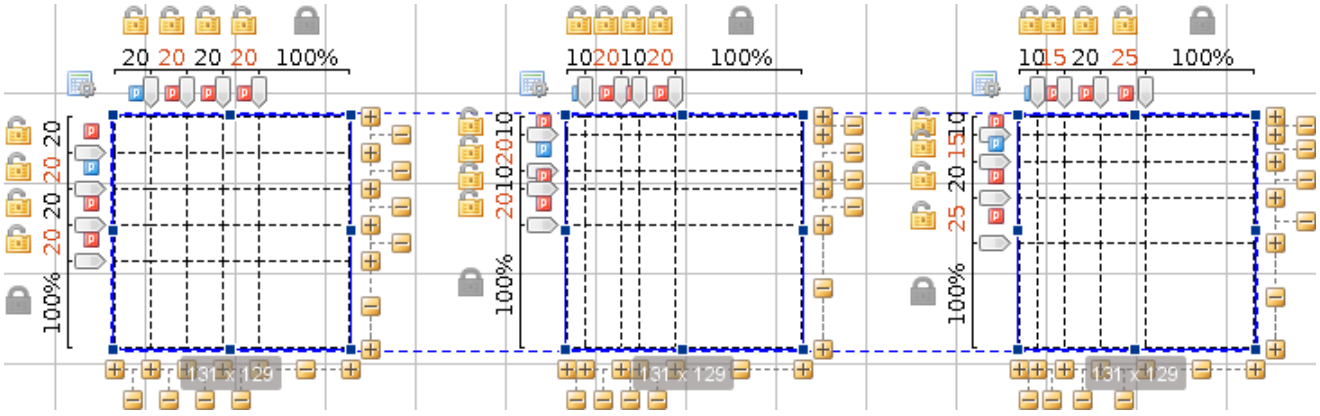


Figure 108. Setting the size of layout zones

The size of the zones can also be set up manually (by moving the slider)/.

5.3.3. Inserting an object in several cells

There are two ways of inserting objects in several layout cells :

- stretch the object over the cells:

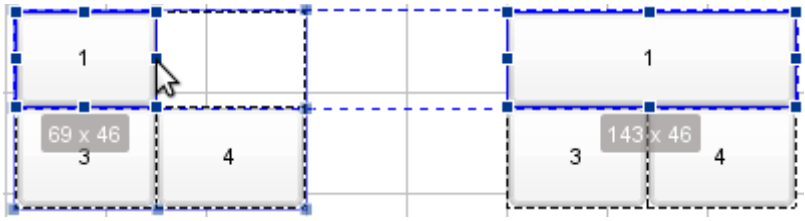


Figure 109. Stretching the object over two layout cells

- open the context menu and select the item **Add object by cells.** Select the cells keeping the left mouse button pressed and insert the object:

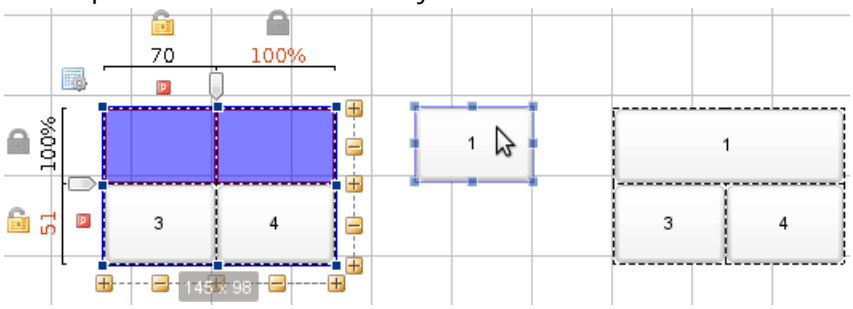


Figure 110. Inserting an object in two layout cells

If the object exceeds the size of the layout, it will be decreased to the size of a layout cell. If it is impossible to decrease the object, it will not be inserting and you should see the following tooltip:

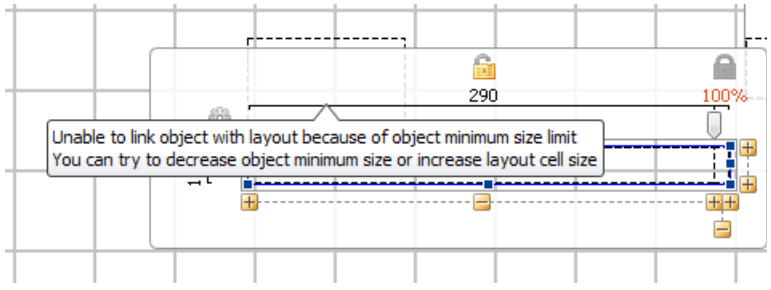


Figure 111. An error occuring at inserting an object into a dynamic layout

5.3.4. The background of cells

In ***GUI Machine*** it is possible to change the background of the selected layout cells:

- open the context menu of the layout;
- select the item **Change cells background** :

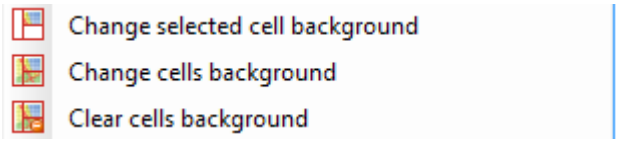


Figure 112. Changing the background of layout cells

- select the cells keeping the left button of the mouse pressed:

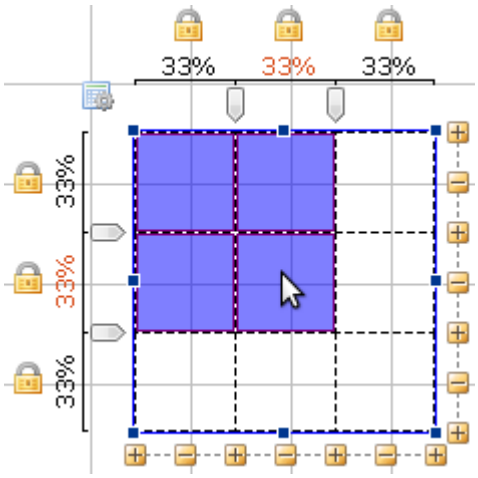


Figure 113. Selecting cells to change the background

Release the mouse button. The following window should open:

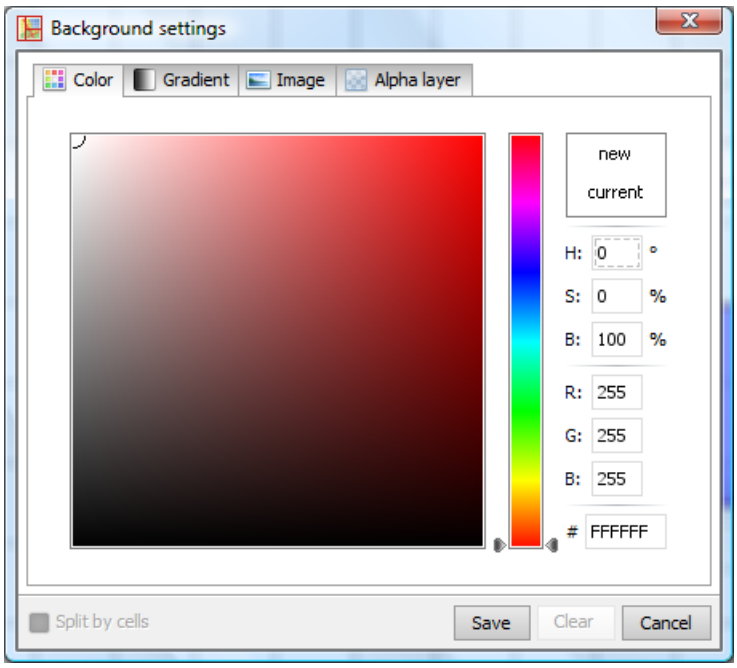


Figure 114. Background settings for layout cells

There are the following options for the background of the cells:

- Color ;
- Gradient;
- Image;
- Alpha layer

Select the necessary tab.

When selecting the tab ***Color*** the cells will be painted with solid color:

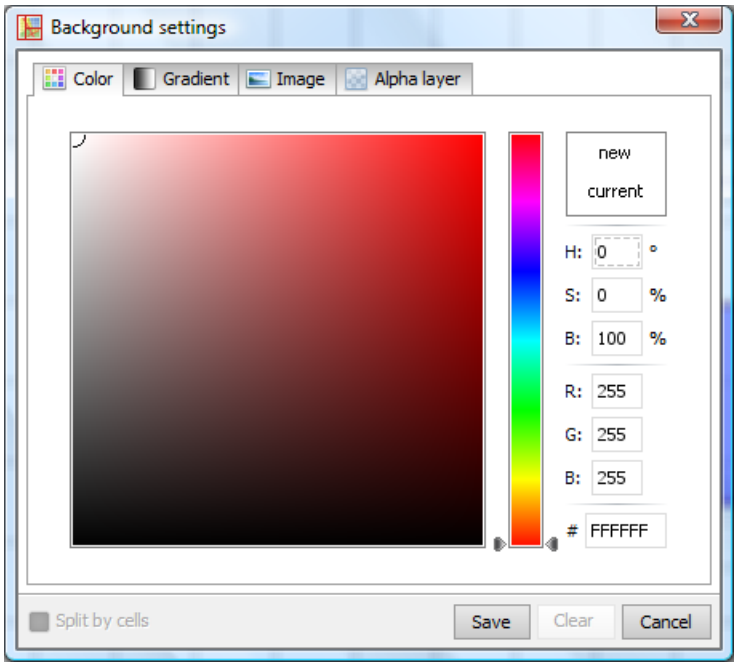


Figure 115. Selecting color

When selecting the item ***Gradient*** the selected cells will be flooded with gradient:

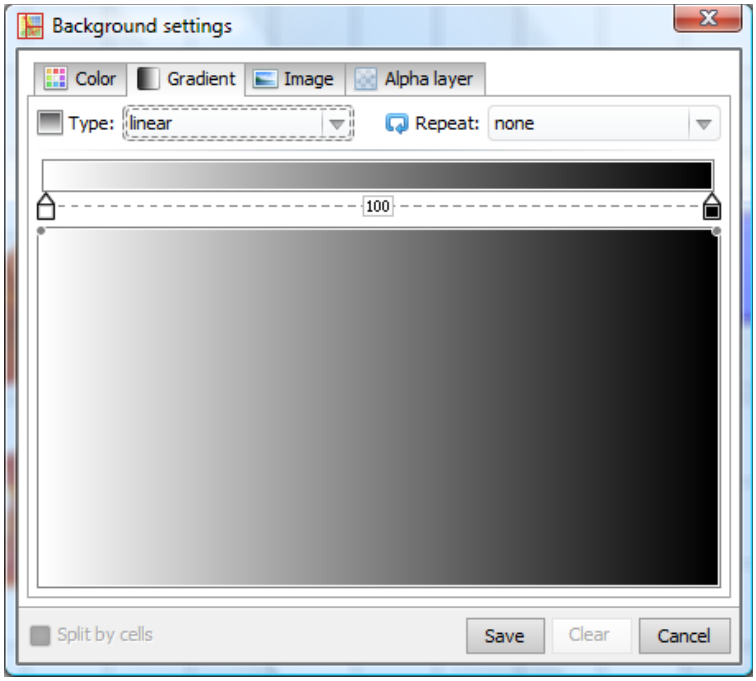


Figure 116. Gradient

You can select the type of the gradient (linear or radial) in the dropdown menu ***Type***. In the dropdown menu ***Repeat*** you can define whether the gradient will repeat. The range of the gradient can be set up by moving the slider located above the dropdown menu. Set the necessary parameters and press ***Save*** button. To use and image as the background for the layout cells select the tab ***Image.***

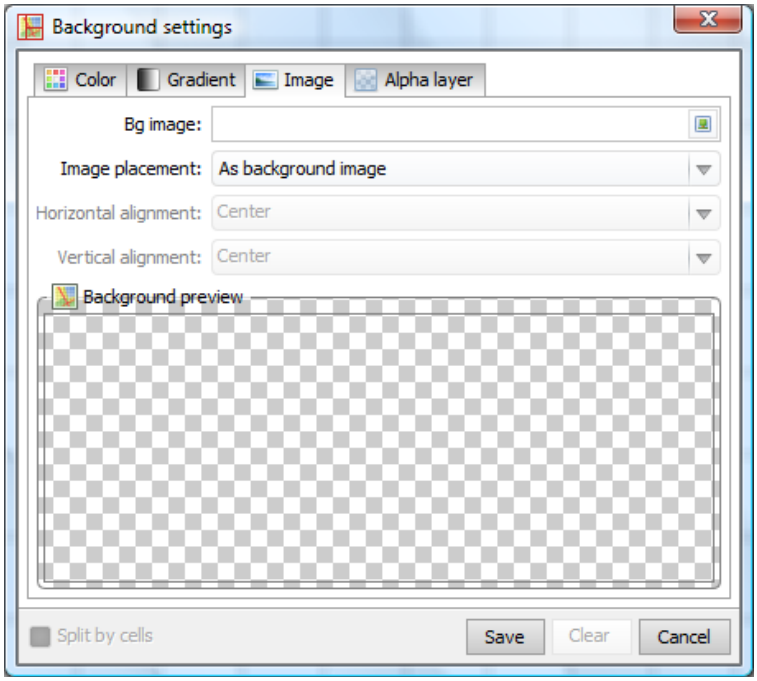


Figure 117. Selecting an image

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Select the way of placing the image in the ***Image placement*** dropdown list :

- As background image;
- Fit to full object size
- Fit to image size :

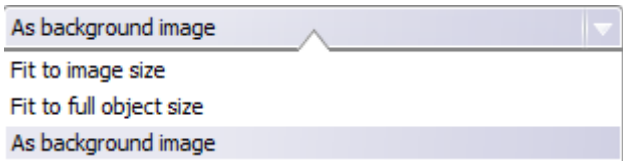


Figure 118. Selecting the image placement

If you select the option ***As background image***, the image will be set as background. It will be multiply repeated without resizing.

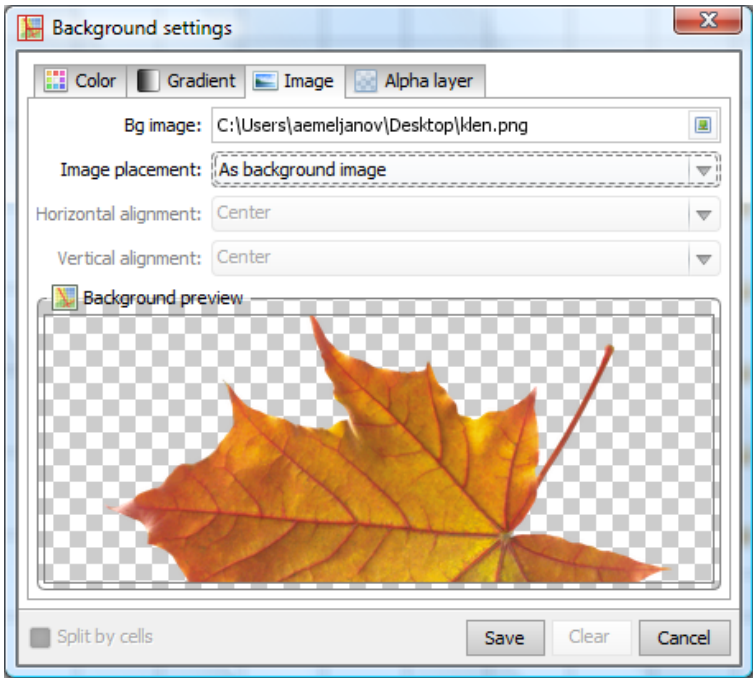


Figure 119. Placing an image as a background image

If you select the option ***Fit to image size***, the image will be located in the center of the selected cells without resizing:

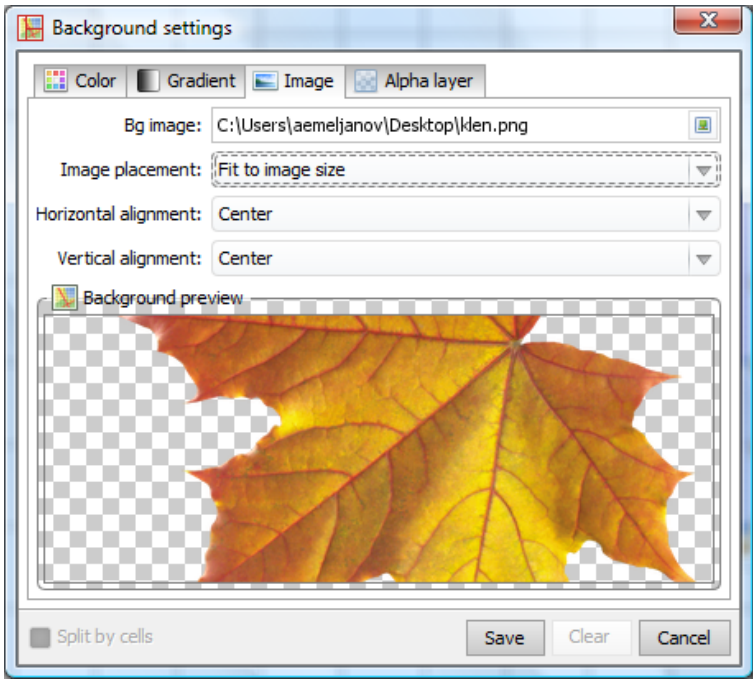


Figure 120. Fitting to image size

If you select the option ***Fit to full object size*** the image will be extended to the size of the selected cells:

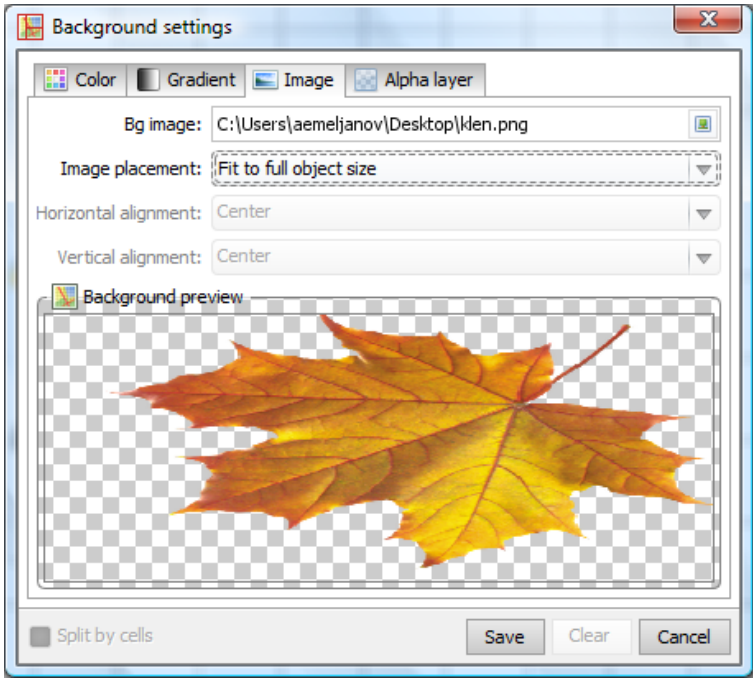


Figure 121. Fitting to full image size

If you select the option ***Alpha layer***, the selected cells will be filled with alpha layer. The alpha layer is a sequence of squares used for marking transparent areas. Enter the size of a square side in pixels in the field ***Square size***. The default size of a square size is 10 pixels. You can also select the color for the squared.

After changing the settings press the ***Save*** button:

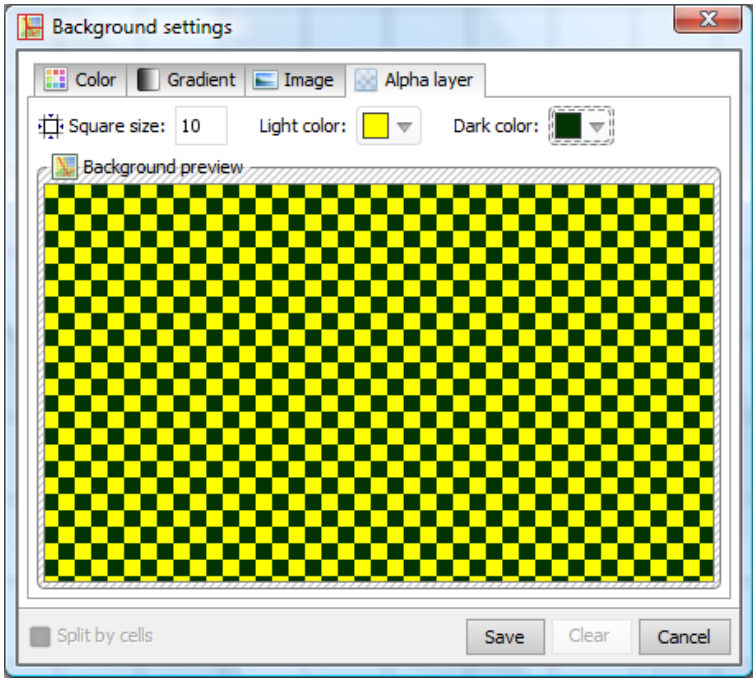


Figure 122.Settings for the alpha-layer

Example.
On the figure below you can see a layout in which backgrounds with all possible settings are used:

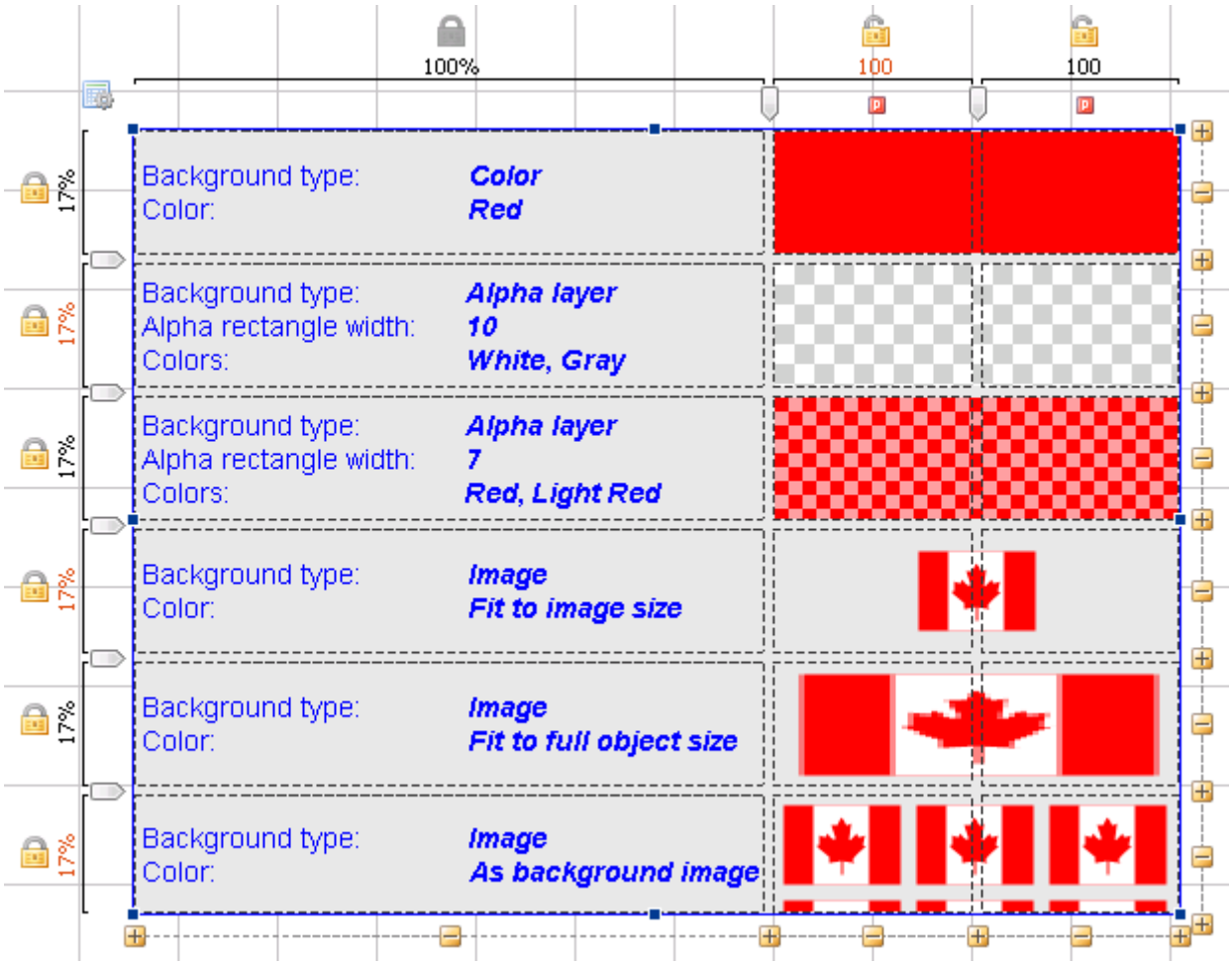


Figure 123. Settings for the background of cells

When previewed the layout shown on figure 123 looks as it is shown on the figure below:

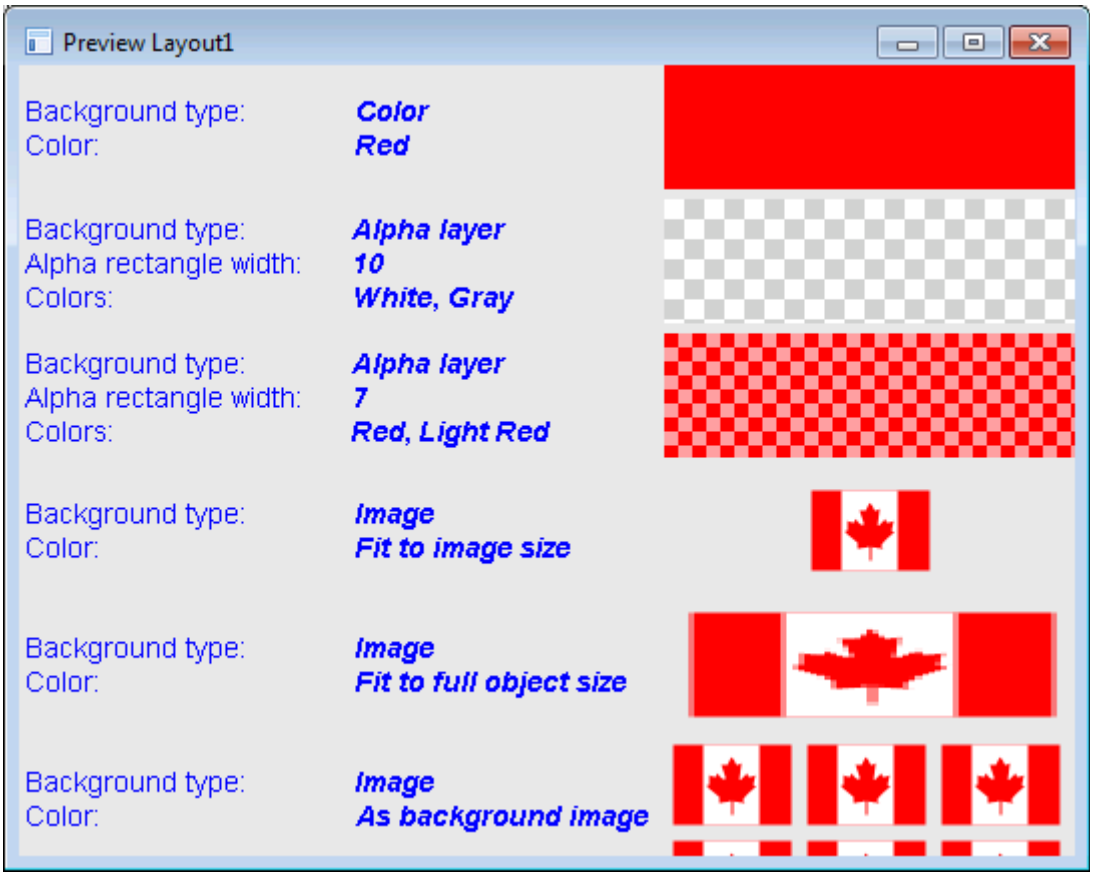


Figure 124. Previewing a layout

To change the background of a single cell :

- select the cell and click on it to open the context menu;
- select the item **Change selected cell background** :

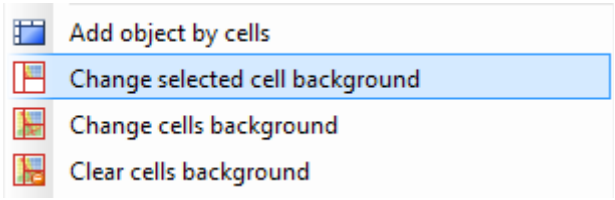


Figure 125. Changing the background of a single cell

It is possible to put several backgrounds into one layout cell. That is why in the program there are two ways of clearing the background of cells:

- total clearing;

- selective clearing.

Total clearing is removing all backgrouns from the cells.
For total clearing:

- Select the item **Clear cells background** in the context menu:

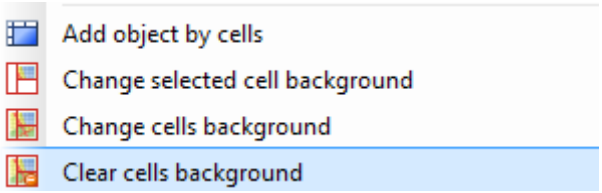


Figure 126. Clearing the background of cells

- press the left mouse button and select the cells to be cleared

After clearing the cells will have the background indicated in ***Background color*** property.

Selective clearing allows to remove one of the previously set backgrounds:

- select the item **Clear cells background** in the context menu**.** Press the left mouse button and select the cells the background of which you need to clear. Press ***Clear*** button in the window that should open.

During the selective clearing choose the cells for which the background was cells. The button ***Clear*** will not be active otherwise.

The property ***Background color*** does not depend upon the background set by means of the operations described above. If you change the background of all cells with the help of the context menu, the property will remain unchanged.

The background selected in the context menu is displayed above the background indicated in the property ***Background color*** .

5.4. Recommendations and examples

Avoid situations when the size of a layout cell is equal to the minimal size of the object inserted into it. In the.

If you cannot diminish a layout on the edit area, check the zones whose size is indicated in percentage of the free layout space. It is more than likely that one of these zones reached its minimal size.

If one of the zones whose size is indicated in percentage of the free layout space has reached its minimal size when adding a new cell to the layout, the size of the layout will be increased by 10 pixels.

How to remove table headers

To remove the header of a table disable the property ***Scroll bars***. Thus the borders of the table will also be removed.

Figure 127. A table without header

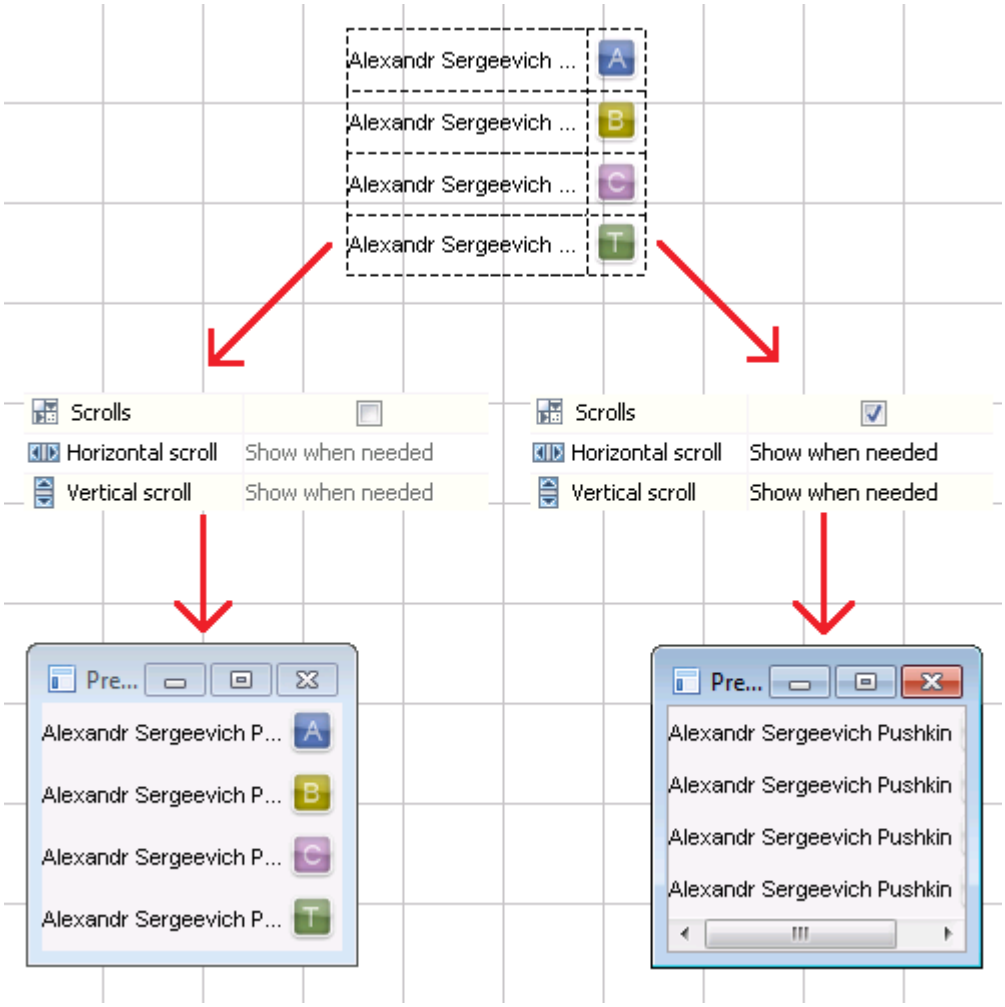
Scroll bars

Be attentive when using scroll bars. On figure 128 you can see the layout with the disabled (on the left) and enabled (on the right) ***Scroll bars*** property.

If this property is disabled, the layout looks as it is displayed on the edit area when previewed. In the layout with scroll bars enabled the horizontal scroll bar lead to the increasement of the first column whose size was indicates in percentage of the free layout space. Thus the images shifted to the right.

Sometimes it is necessary to prevent from the increasing of layout columns when scrollbars are enabled. If you do not want the column to increase, indicate its size in pixels. If you want the column to increase, indicate its size in percentage of the free layout space.
To avoid the increasing of all layout columns, add an empty column with the minimum size and assing 100% of free space to it.

Figure 128. The influence of scroll bars on the display of the layout



One more way of selecting images

There is one more way to select an image and it faster and more convenient than those described above:

- click on an existing image or on an object containing images;
- copy the value of the ***Image*** property ;
- insert it into the Image property of the necessary object

How to create a pop-up window

Add a window on the edit area. Disable the property ***Decorated*** and enable the property ***Close on focus loss*** . Despite of the fact that it is displayed as a decorated window on the edit area, it will look like a pop up window and will be closed on focus loss when launched.

Example: a pop-up window appears when pressing the button.

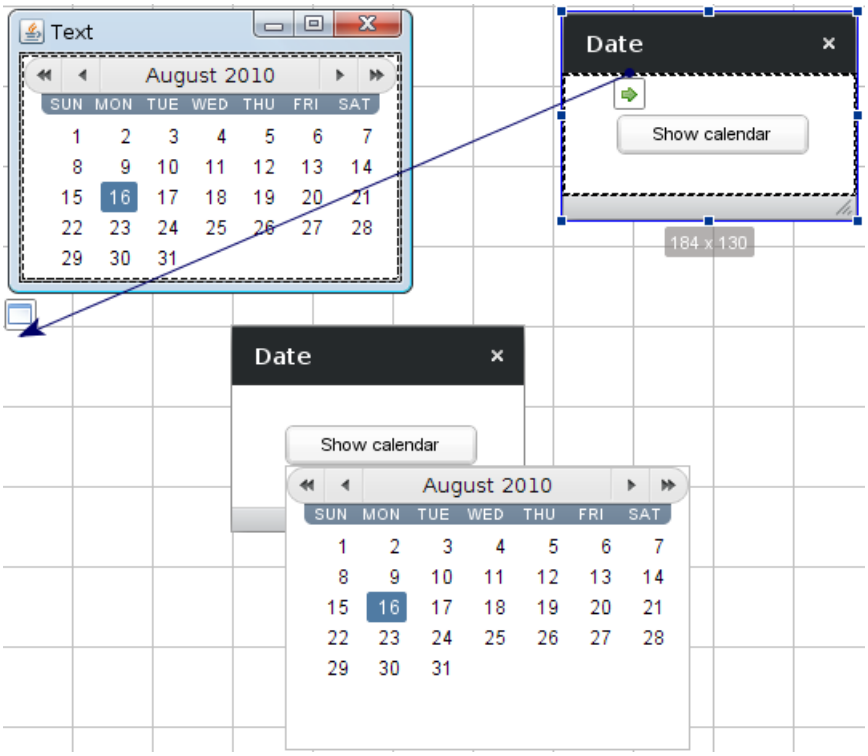


Figure 129. A pop-up window in preview

NB: *the property* ***Decorated*** *can be disabled for standard windows only. With Vaadin windows the operation described above is impossible.*

Grouping objects

Objects like radio buttons and toggle buttons can be united in groups. Select the objects you would like to unite and enter the number of the group into the property ***Grouping.***
During the preview these objects will work as a group. This means that:

- only one object from the group can be in the ***selected*** state;
- if only one objects in the group is selected the other ones become deselected.

How to create single line and multiline texts

Sometimes it is necessary to make the text in a label single-line or multiline.

If you want to locate the text on several lines, open the ***Text*** property and select the tab ***HTML editor***. HTML-texts are always multiline

If you want to make multiline text single-line, go to the tab HTML-code and tag it <nobr></nobr>

Figure 130.Multiline and single-line texts

You can use all HTML tags in the tab HTML-code.

Operations with images on the edit area

On images located on the edit area the following operations can be performed:

- increasing or decreasing the size of the object to the size of the image;
- rotating the image around its center.

These operations are performed by pressing the buttons above the image:

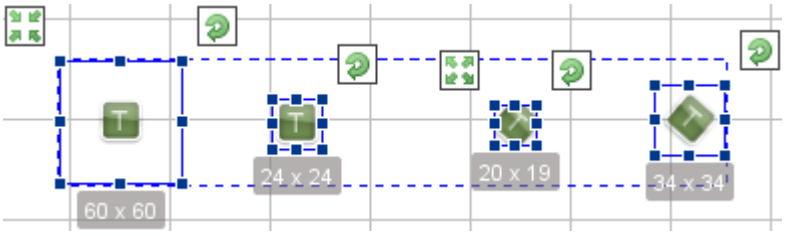


Figure 131. Operations with imae

By double -clicking the the rotation angle is set as 0°.

How to set the border for an object/a region

You can use a ***Panel*** as a border for a region**.** Insert the panel into necessary region and disable the property ***Border header***. Select the type, the color and the width for the border in the properties.

How to create a switching

To create a checkbox with switching icons:

- select the image representing the checkbox in the ***Image*** property;
- select the image for the selected state of the checkbox in the ***Selected image*** property;

The same procedure can be applied to ***Radiobuttons.***
This procedure can be applied to ***toggle buttons*** if the property ***Decorated*** is disabled**.**

Copying objects containing actions

To copy the objects with actions related to them, select the objects being event triggers and action targets together and copy them.
If only one object (either event trigger or action target) is selected and copied, the action will not be copied.

Working with polygons

To add a corner press the icon . To remove an angle press ***Ctrl*** and click on it. To move the vertex of angle not only on the borders of the object but also inside it disable the property ***Snap points to sides***.

To curving the sides of the polygon disable the property ***Snap points to sides*** и and move the vertices holding the ***Shift*** key.

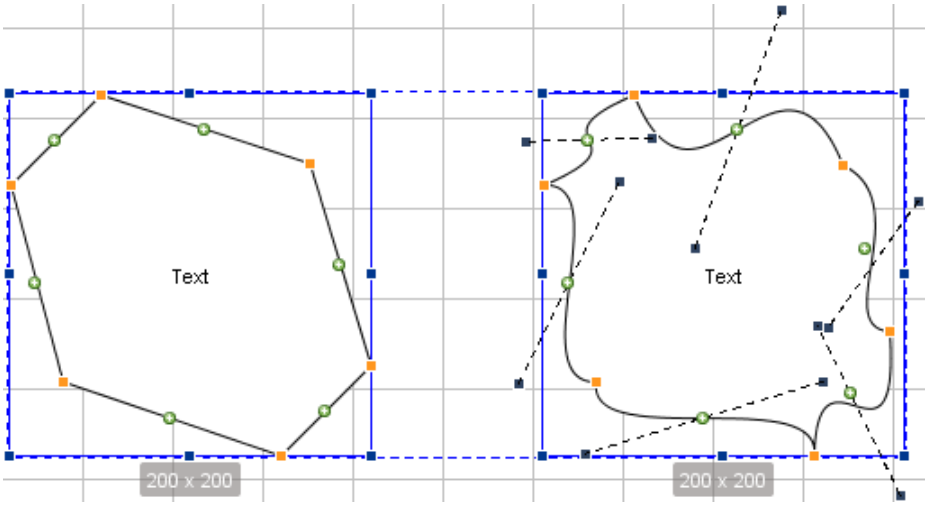


Figure 132. Curving the sides of a polygon

How to add a menu to a window

There to ways to add a menu to a window:

- Open the context menu and select the item ***Choose window menu bar***; then click on the menu so it be inserted into the window.
- In the properties of the window select the property ***Window menu bar*** and select the menu to be inserted into the window in the tree.

You can also select a submenu for each menu item by the following ways:

- Right-click on the item to which you would like to a add a submenu. The context menu will open. Select the item Choose popup for menu in the context menu and then left-click on the necessary submenu.
- Open the Menu editor. In the column Popup menu select the submenu for the item by pressing the button .

A window containing a menu with a submenu is shown on the figure below:

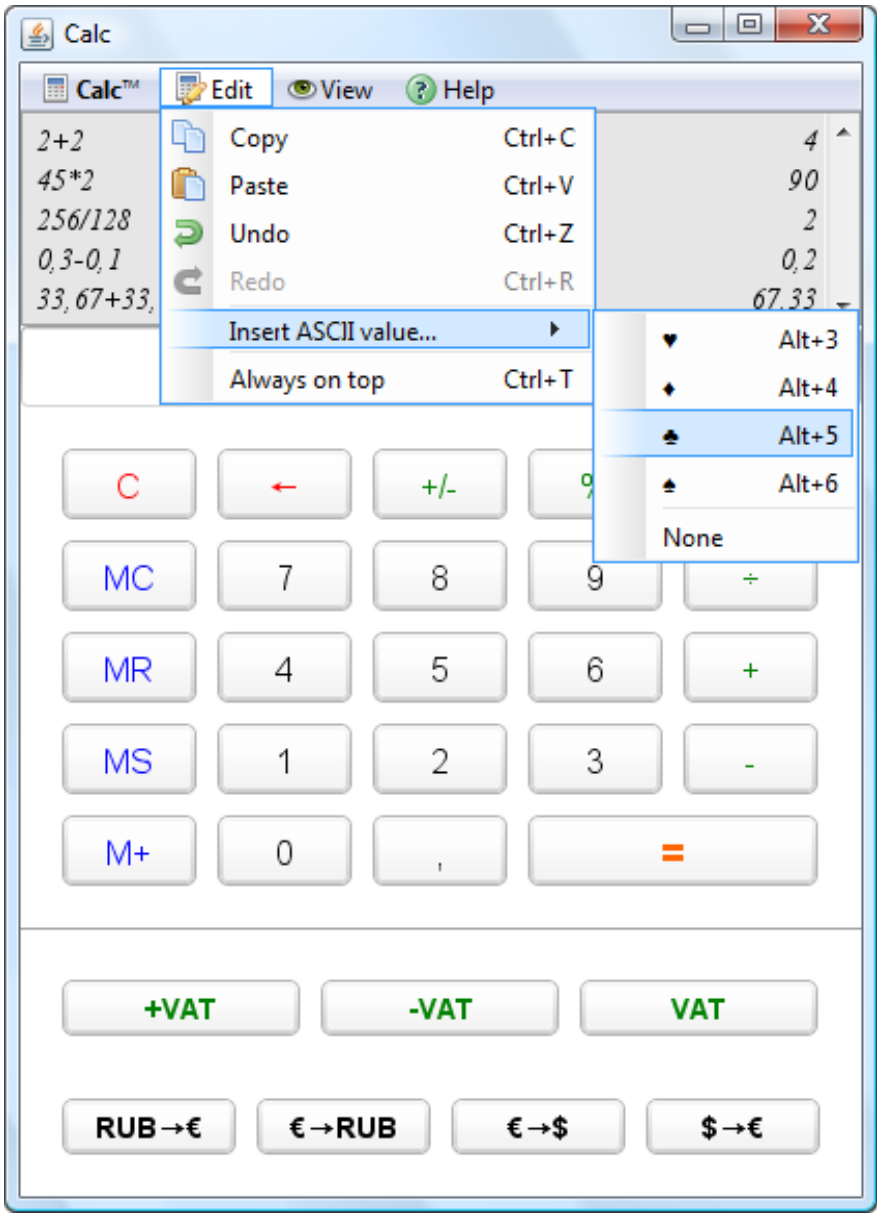


Figure 133. A window with a menu

To unlink the menu and the window select the item **Unlink window menu bar** in the context menu. To replace the existing menu by another one open the context menu and select the item **Change window menu bar**.

How to create a tailor-made window

In GUI Machine it possible to create original windows (not only rectangular, but also round, elliptical, etc.)
To create a tailor-made window:

- add a window to the edit area;
- disable the properties ***Decorated*** and ***Opaque*** ;
- select the geometrical configuration for the window in the ***Shapes*** menu;
- set up the limits within which it will be possible to move the window:

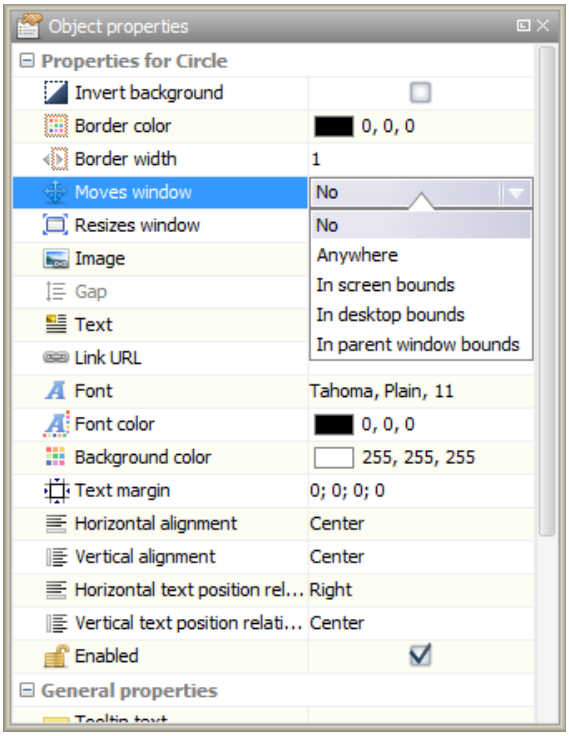


Figure 134. Editing the properties for a figure

- drag the figure on the window.

The window will take the shape of the selected figure when previewed. Other components can also be added to tailor-made windows.

5.5. Operations on the project

Saving the project

To save the project select the item **File→ Save project** in the file menu or press ***Ctrl+S.***

If you would like to change the location for saving the project or if you did not create project in the beginning of the work, select the item ***File→ Save project as...*** Select the directory in the window that will open.

It is highly recommended to backup all projects you work upon. This can prevent you from data loss.

When a project is saved:

- All the images are saved in the subdirectory ***/resources*** located in the directory of the projects.
- All the screenshots are saved in the subdirectory ***/screenshots*** located in the directory of the project.

The templates are not linked to any project. They are saved in the subdirectory ***/templates*** located in GUI Machine install folder.

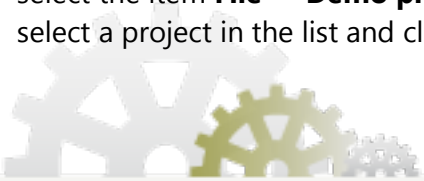
Opening a project

To open a project:

➔ select the item **File → Open project** in the main menu
➔ select the necessary file;
➔ press the button ***Open*** ;

To open a demo project :

➔ select the item **File → Demo projects** in the main menu
➔ select a project in the list and click on it



If you have made the association of ***.gui** files with GUI Machine during the installation, they can be opened by double-clicking.

Creating a project

To create a project select the item **File→New project** or press ***Ctrl+N***. Enter the name of the new project and select the directory for saving it.

The current project will not be saved when creating a new project in the fashion described above. All the changes will be lost. Save the current project before creating a new one.

Project settings

To access to the project settings select the item **File → Project settings** in the main menu or press ***Ctrl+Alt+S***. The following window should open:

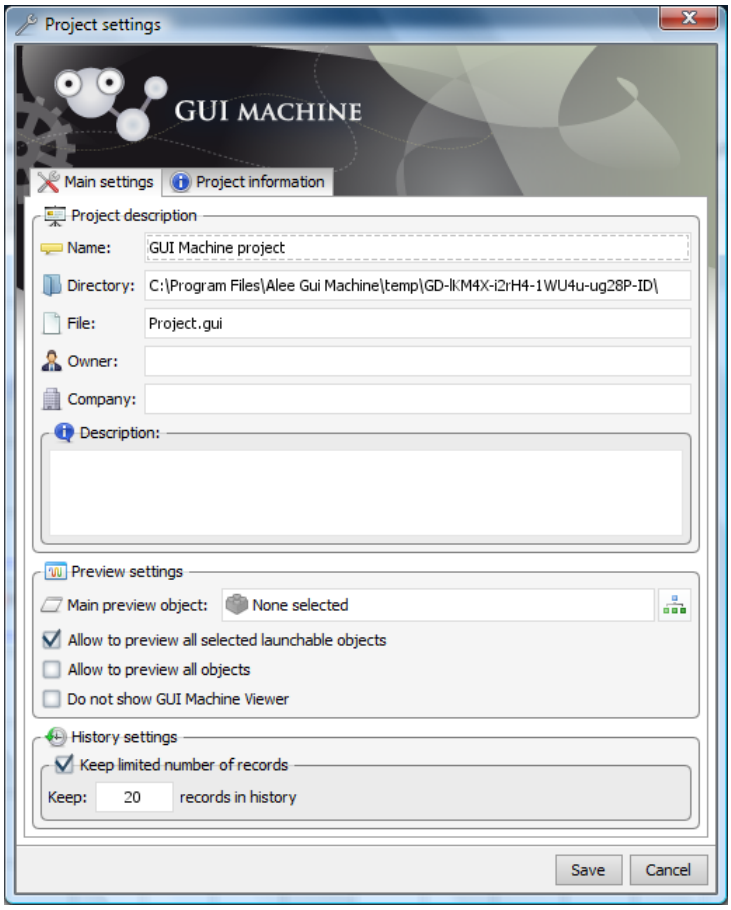


Figure 135. Project settings

In the tab ***Main settings*** the following parameters can be edited:

- *the name of the project*;
- *the owner of the project*;
- *the company of the owner*;
- *the description of the project.*

With the help of the ***preview settings*** you can manage the work of the prototype during its preview in ***GUI Machine Viewer***.

Click on the field ***Main preview object*** to access to the tree-like structure of project elements. Select the object and press the button ***Choose.***

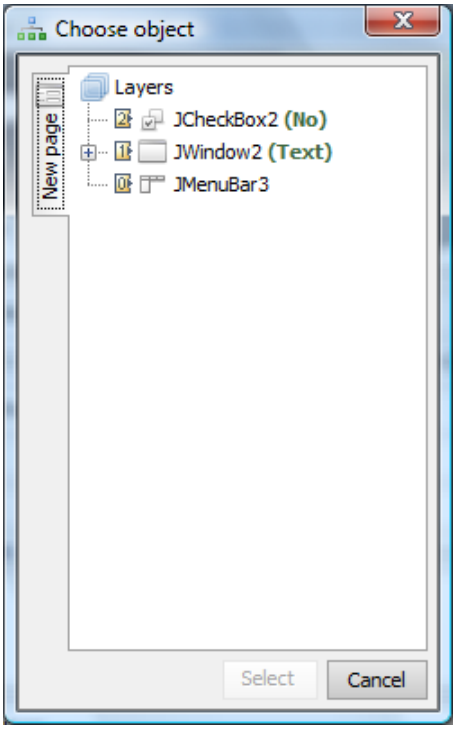


Figure 136. Selecting the main preview object

If you do not need to choose the main preview object, deselect all objects by clicking on them while keeping the ***Ctrl*** key pressed and then press the button ***Choose.***

To enable the preview of all launchable objects in ***GUI Machine Viewer*** select th appropriate checkbox.

If you want to preview all the objects of the project in ***GUI Machine Viewer***, select the checkbox ***Allow to preview all objects***.

With the help of the ***History settings*** panel it is possible to manage the history records.

If you want to limit the number of records to be stored, select the checkbox Keep limited number of record and enter the value in the text field.

If the checkbox is deselected, the text field will be blocked and the number of history records will not be limited.

The tab ***Project information*** is shown on the figure below :

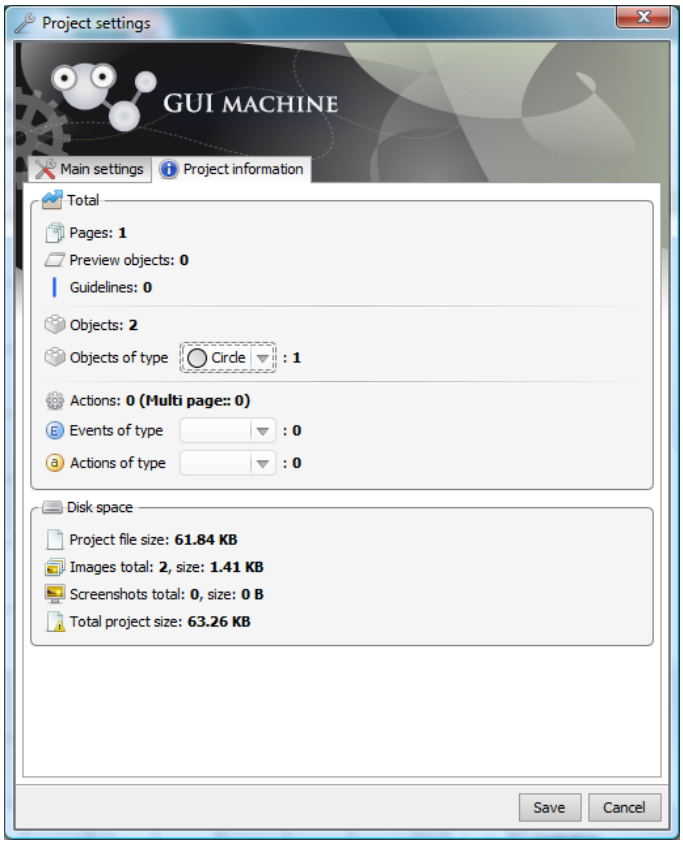


Figure 137. Project information

In this tab you can find the following information:

1. The number of pages;
2. The number of preview objects;
3. The number of guidelines;
4. The total number of objects
5. The number of objects of different typers
6. The total number of actions (and the number of multipage actions)
7. The number of events of different types
8. The number of actions of different types
9. The size of the project file
10. The number of images and their total size
11. The number of screenshots and their total size
12. The total size of the project (the used RAM).

Application settings

Select the item **File** → **Application settings** in the context menu. The following window will open:

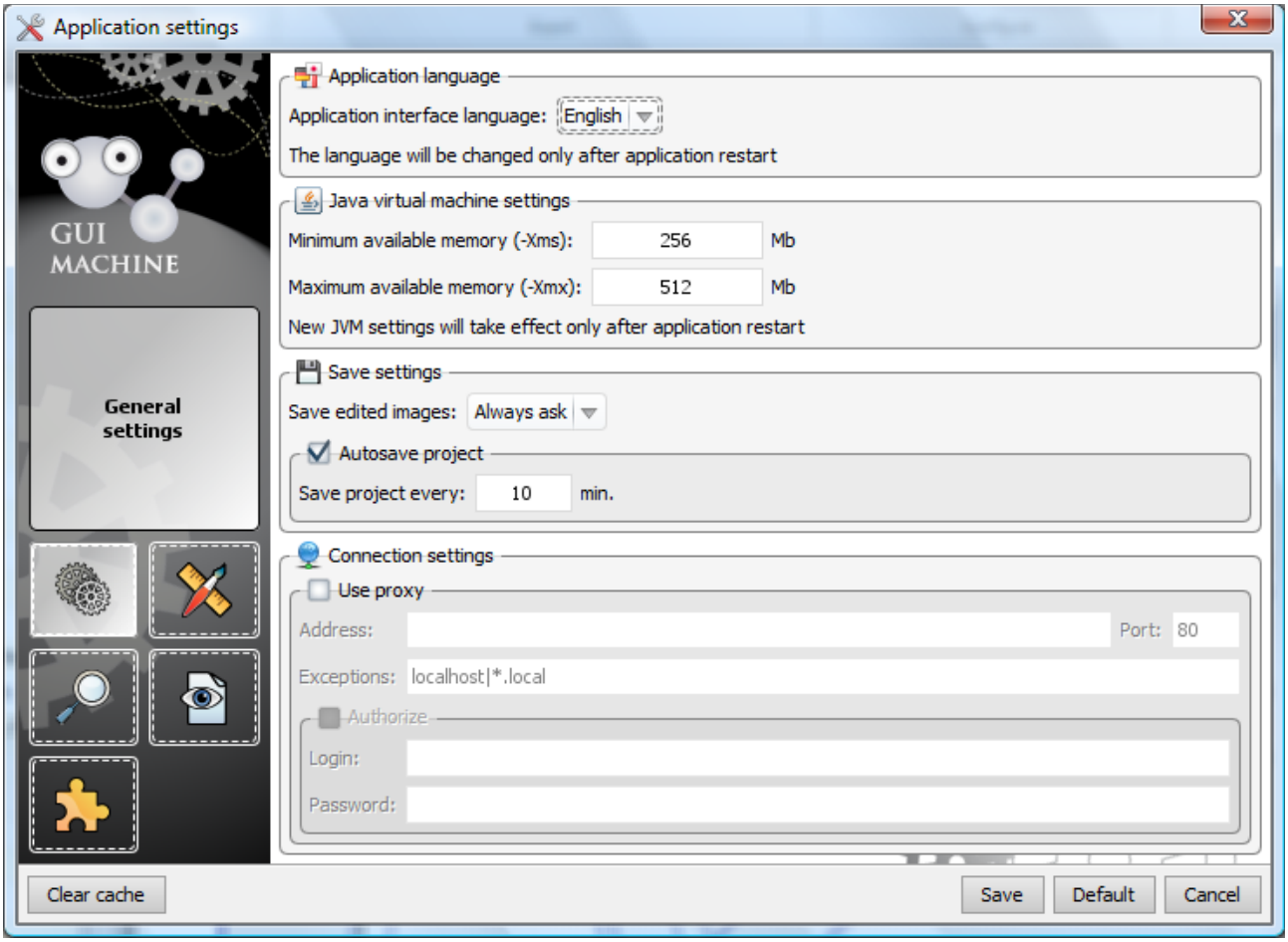


Figure 138. Application settings

By clicking on the icons you can select different types of settings:
General settings, Visual settings, Search settings, Preview settings, Component settings

General settings

In this window (fig. 138) you can edit the following parameters:

1. Application language (English/ Russian)
2. Minimum available memory
3. Maximum available memory
4. Settings for saving edited images (Always ask; Always into a separate file ; Always into the same file)
5. Setting for autosaving the project
6. Time intervals for autosaving
7. Proxy settings (address, exceptions, login, password).

Visual settings

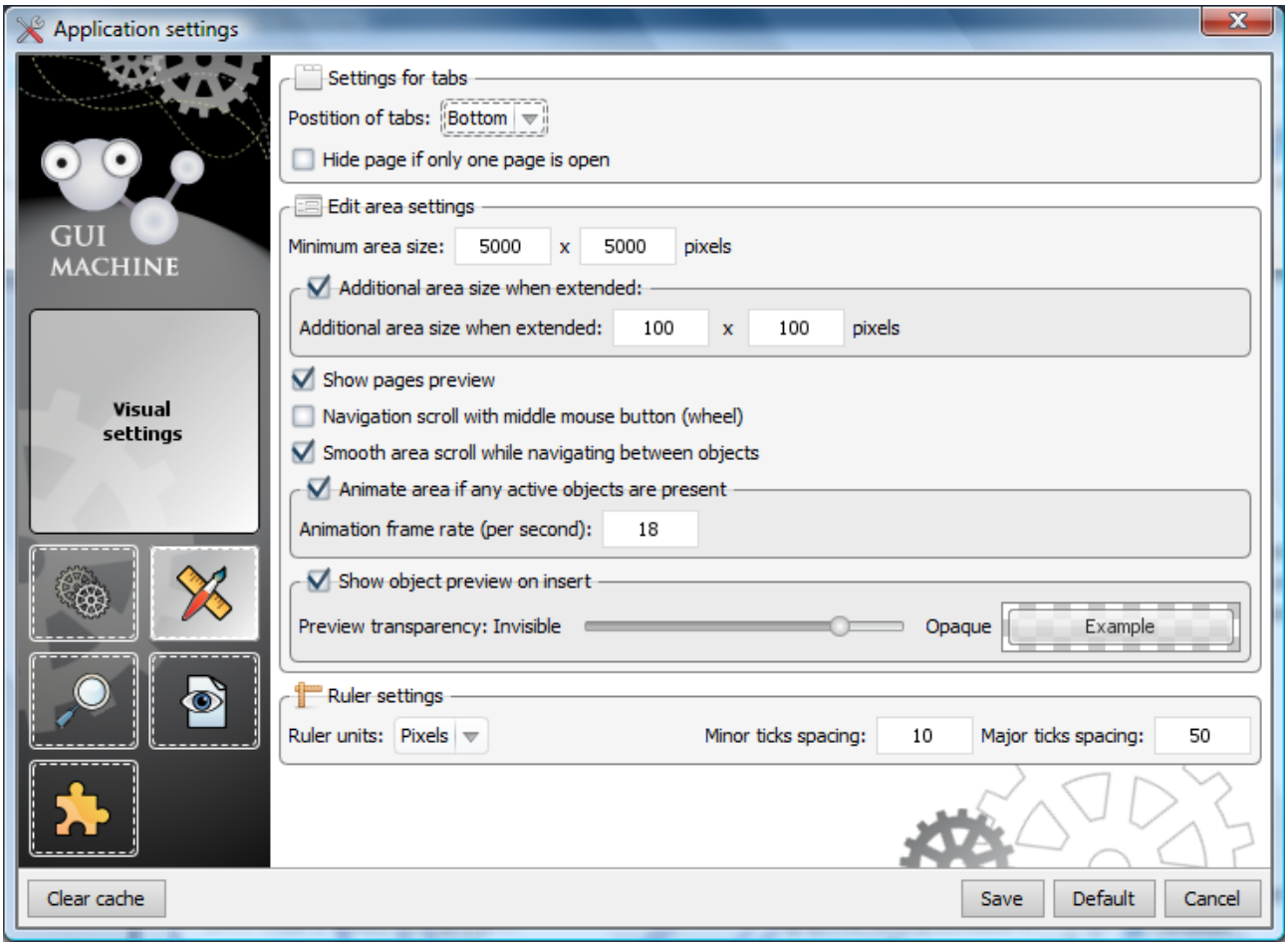


Figure 139. Visual settings for the application

In this window you can configure the following settings:

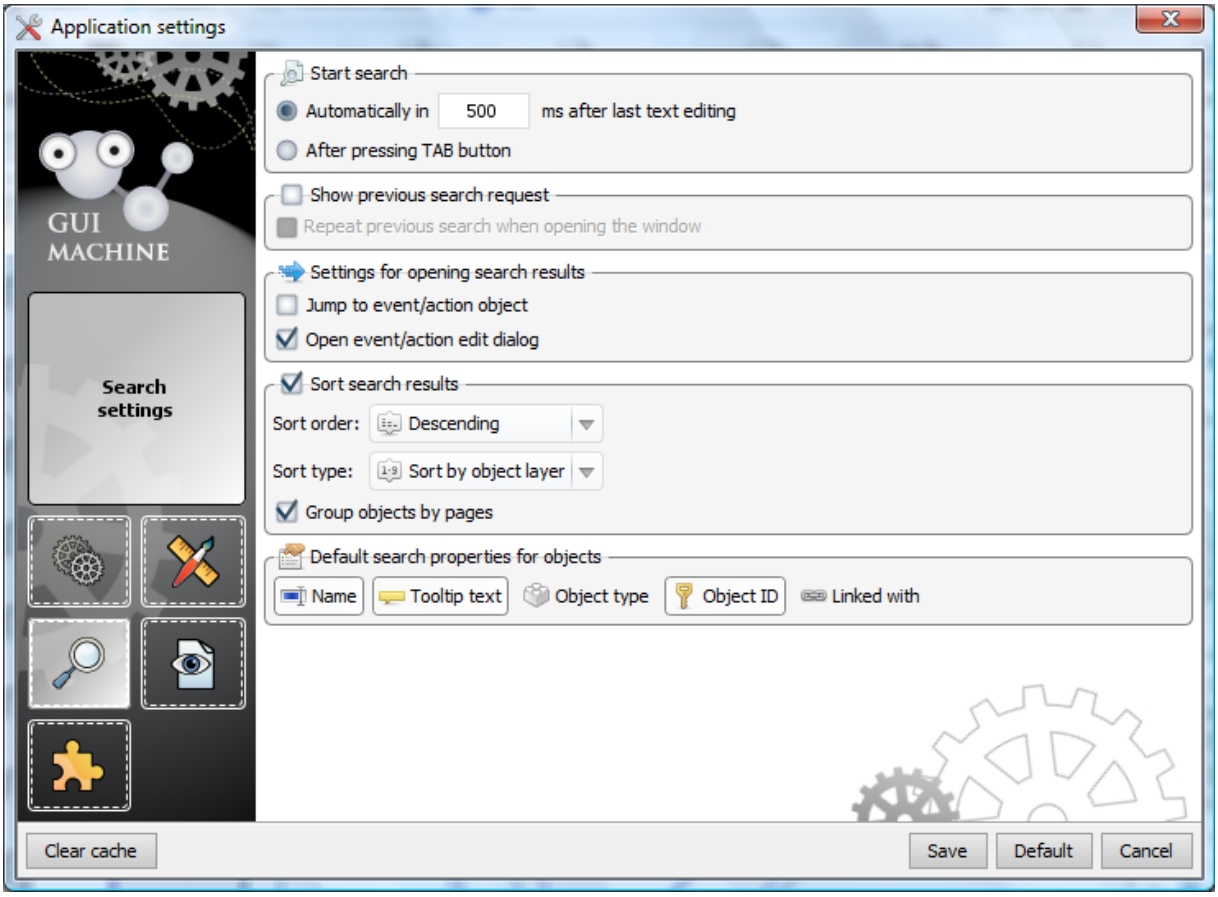
1. The position of the tabs of the pages
2. Hiding the tabs when only one page is open
3. Minimal area size (height * width in pixels);
4. Settings for the supplementary size of the area when extended
5. Supplementary size in pixels;
6. Show pages preview
7. Enabling the scroll with the mouse wheel;

8. Enabling the smooth scroll when navigating between objects;
9. Animate the area including active elements;
10. Animation frame rate;
11. Showing the preview of objects being inserted;
12. The transparency of the preview;
13. Ruler units (pixels, centimeters, millimeters, inches);
14. The spacing between minor ticks
15. The spacing between major ticks.

Search settings

In this window the following settings can be configured :

1. Time to start the research (in millisecunds or after pressing the ***Tab*** button
2. Show the previous research request;
3. Repeat previous search when opening the window
4. Jump to event/action object;
5. Open event/action edit dialog;
6. Sorting search results;
7. Sort order (ascending, descending, do not sort);
8. Sort type (by layer, by name, by text,by object type);
9. Group objects by pages
10. Default search properties for objects



Figur 140. Search settings

Preview settings

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In this window the following settings can be configured:

Settings for the dynamic preview:

1. Automatic closing of previously previewed objects
2. Displaying the previewed objects above all windows
3. Launching the screenshot making tool when launching the preview

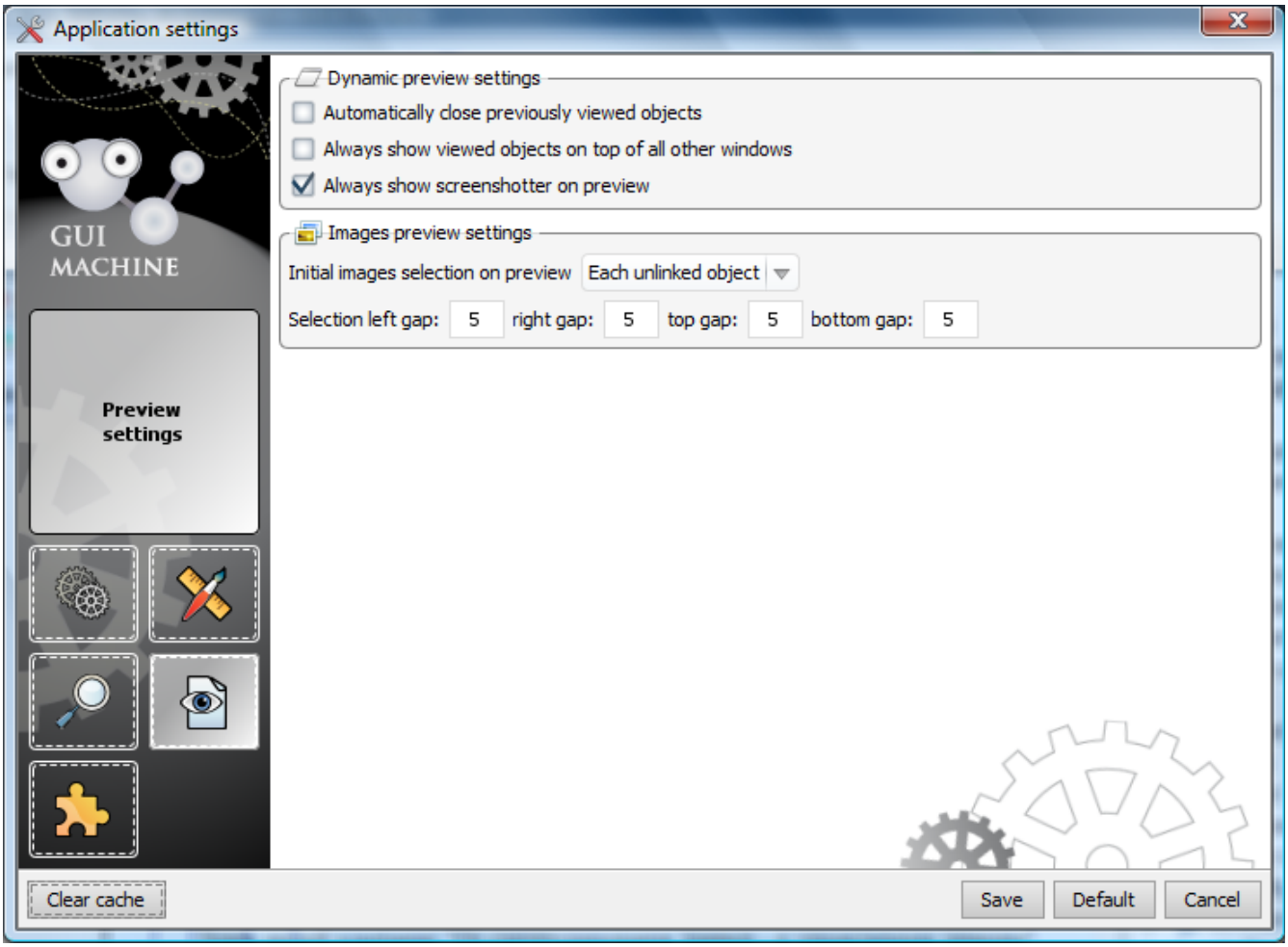


Figure 141. Preview settings

Settings for image preview

1. Selecting images for preview (Each unlinked object, Divide by guidelines, All together, Without selection)
2. Setting gaps for the selection in pixels

Settings for components

Click on the icon above to configure these settings .

In the window shown on the figure below you can configure the properties for all components inserted into the prototype:

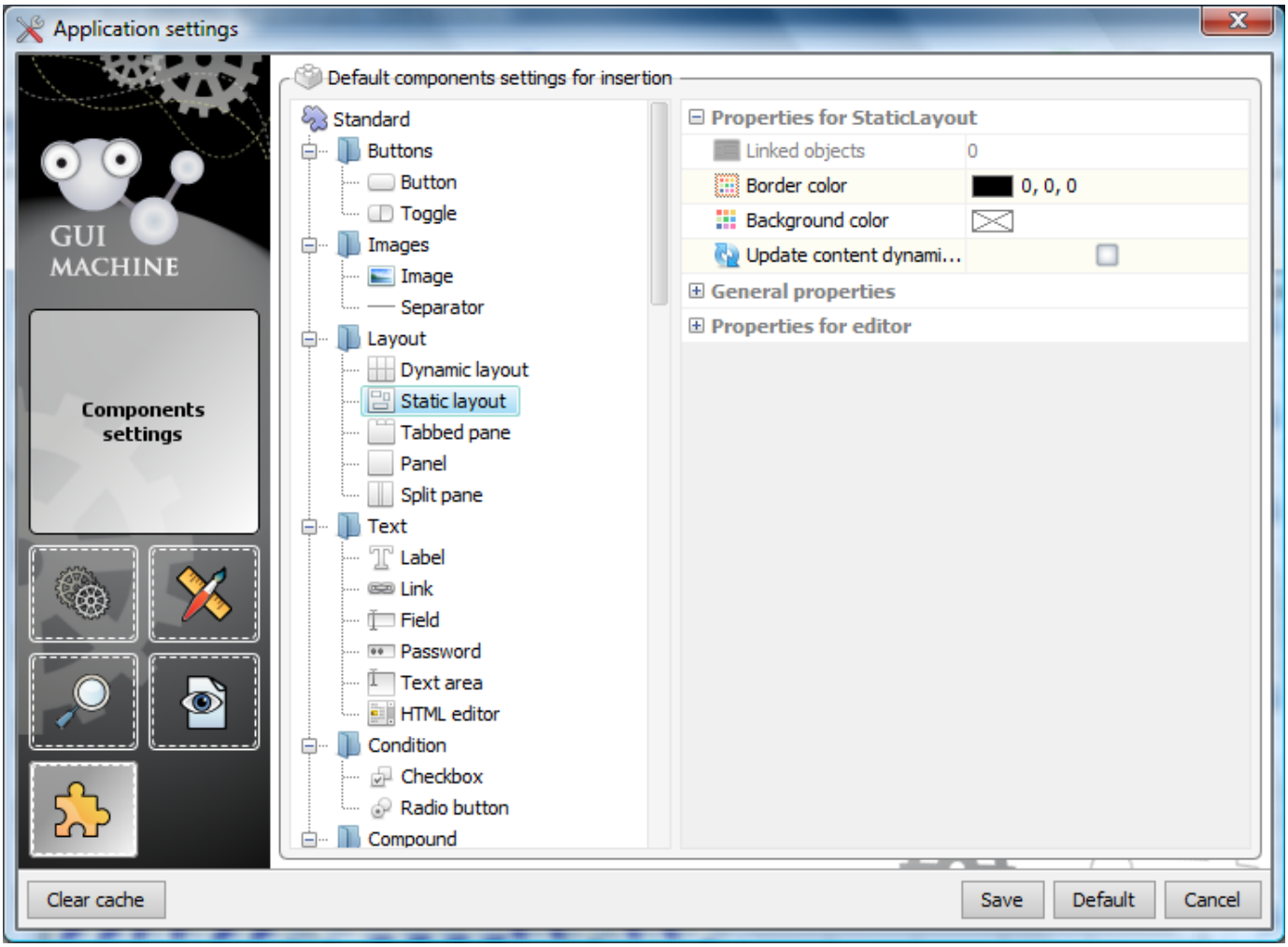


Figure 142. Settings for components

6. Actions

Actions are a key feature that provides the prototypes created in ***GUI Machine*** with interactivity.
An action consists of two elements – th event being the action trigger and the action itself.

Actions can be triggered by the following events: mouse manipulations, pressing keyboard combinations, the changing of the focus.

Actions may have such ***results*** as changing objects properties, opening/closing windows, establishing connections between objects.

6.1. Adding actions

In ***GUI Machine*** there are several ways :

- With the help of the ***context menu***:

  - ➔ select the object of an action
  - ➔ press the right mouse button and open the context menju;
  - ➔ select the item **Add action;**
  - ➔ click on the object of the action.

If the object of the action has not been add it on the edit area, you can edit by clicking on the ***Components*** panel.

You can create several actions for one object. Select the item **Add action** in the context menu as many times as it is necessary to create the actions. After adding the first action the interface of creating the second one will open.

- By pressing the button on the ***Layers*** panel:
  - ➔ select the object of the event;
  - ➔ press the button on the ***Layets*** panel.

Not all objects can become action targets or action triggers.

The following objects cannot perform the function of action triggers (event objects) :

- ✗ All shapes:
  - Oval ;
  - Rectangle ;
  - Rhombus;
  - Polygon;
- ✗ Placeholder.

The following objects cannot become action targets :

- ✗ All shapes:
  - Oval ;
  - Rectangle ;
  - Rhombus;
  - Polygon;
- ✗ Placeholder.

One and the same object can be the action target and the action trigger at the same time.

The interface for adding actions is shown on the figure below :

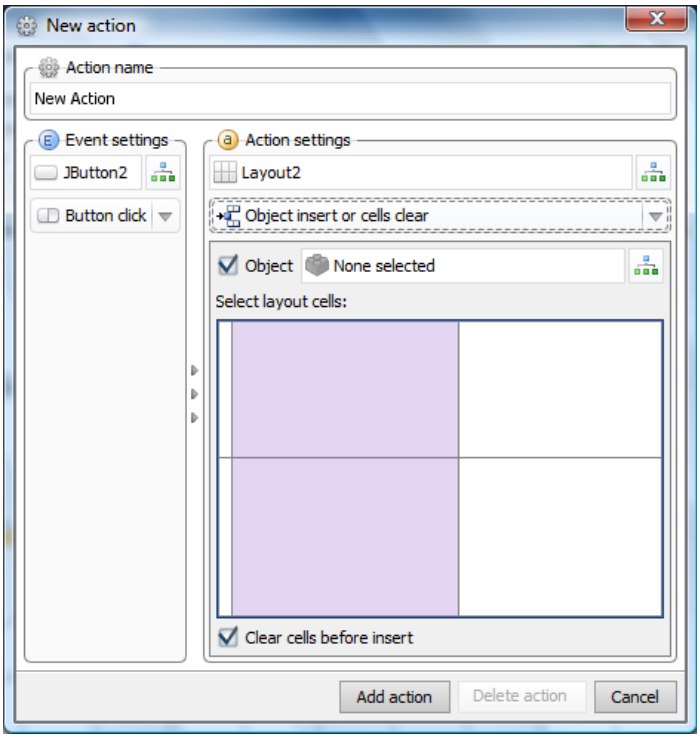


Figure 143. Adding a new action

By default or actions are named as **New Action (....)**. The number of the action is indicated in brackets.

It is recommended to name the actions in accordance with their function. It can make the orientation in projects containing multiple actions much easier.

In the ***Event settings*** field the event object is displayed. You can change the event object by pressing the button . The type of the event can be selected in the dropdown menu.

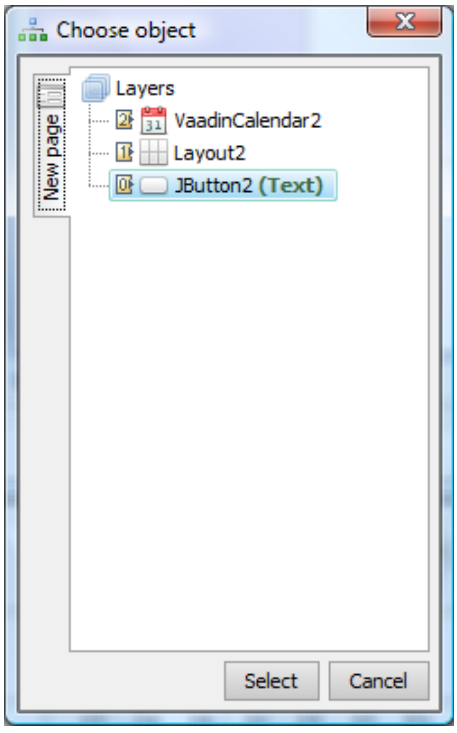


Figure 144. Selecting an action/event object

Objects that cannon used as action triggers are blocked,

In the ***Action settings*** field the action object is displayed. You can change the object by pressing the button . The type of the action can also be selected in the dropdown menu.

The event object and the action object can be located on different pages. Such actions are called multipage actions.

Configure the action and press the button ***Add action***.

Events and actions related to objects are marked by E and a signs in the tree-like structure on ***Layers*** panel.

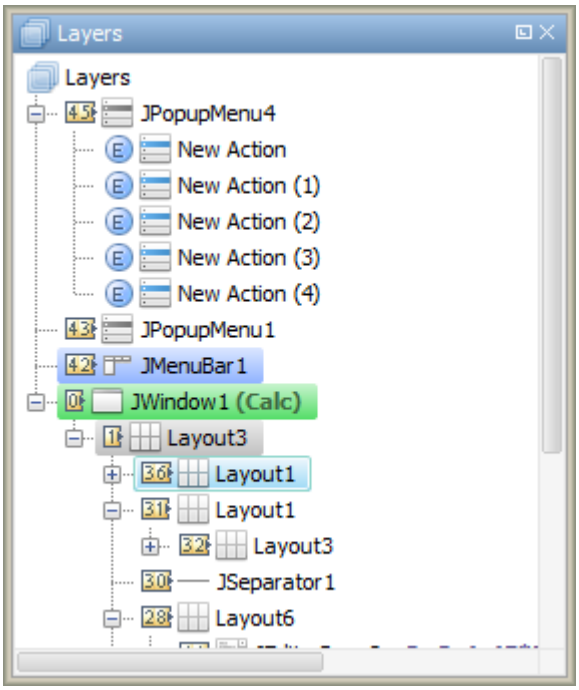


Figure 145. Events and actions in the tree of objects

If you double-click on the signs, the interface for editing actions will open.

On the edit area each action is marked by an arrow directed from the action trigger (event object) towards the action target. The type of the event and that of the image are denoted by icons.

Figure 146. Icons denoting actions on the edit area

If the event object or the action object is removed, the action is also removed.

One and the same object can be a part of multiple actions.

In chapters 6.3. Event types и 6.4. Types of actions the types of events and actions are described in details.

6.2. Editing and removing actions

There are two ways of ***editing*** actions:

- By a double-click on an action or on an event in the ***Layers*** tree.
- By pressing the buttin on the ***Layers*** panel. This button works only when an action or an event is selected.

The interface of editing actions is similar to that of adding actions:

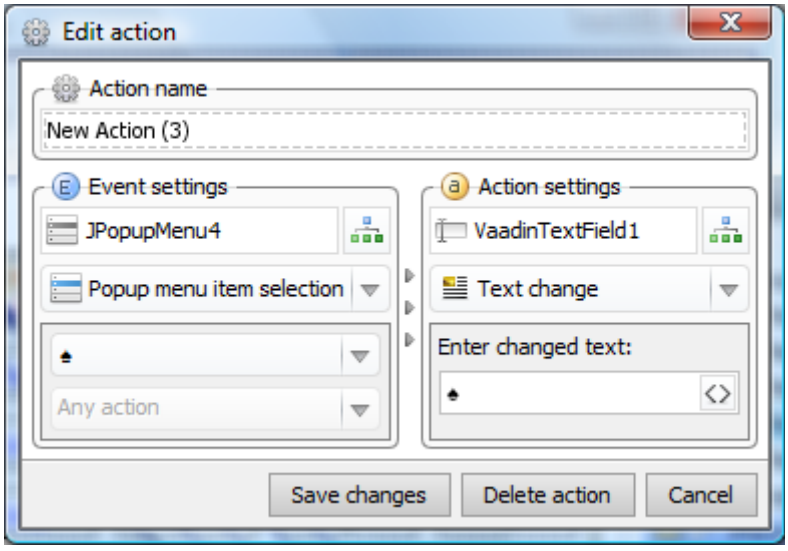


Figure 147. Editing actions

The two interfaces differ only in headers and control buttons.
Edit the actions and press the button ***Save changes***. To undo the changes press ***Cancel.***

There are several ways for removing actions:

- By pressing ***Delete action*** on the action editing panel .
- By selecting the object to be removed in the tree of objects and pressing the button on the ***Layers*** panel.
- By removing either the object of the event or the object of the action.

6.3. Event types

A set of events for a concrete objects depends upon its type. There are unique (related to only on type of objects) and repeatable (related to several types of objects) events.

All event types are described in the table below

Table 33. Types of events

Icon	Event	Description
	Button click	The action is performed when one of mouse bottons is clicked. It can also be performed on pressing ***Space*** and ***Enter*** keys.
	Focus gain/focus loss	The action will be performed on gaining/losing the focus by the selected object. Settings: ➢ Focus gain; ➢ Focus loss; ➢ Changing focus state
	Check state change	The action will be performed on changing the state of the object: Settings: ➢ Selected; ➢ Unselected; ➢ Opposite to the current
	Item selection	The action will be performed on selecting an item in the list. To indicate the item enter its number. The numeration of items begins with **0**. Settings: ➢ **-1** — any item; ➢ **0** — the first item ➢ **1** — the second item;

	Mouse event	The action will be performed after the selected mouse event: ➢ Mouse button click: Left button Mouse wheel; Right button; Any button; ➢ Pressing mouse button: Left button; Mouse wheel; Right button; Any button; ➢ Releasing mouse button: Left button; Mouse wheel; Right button; Any button; ➢ Mouse enter into the area of the selected object; ➢ Mouse exit from the area of the selected object; ➢ Scrolling the mouse wheel: Up; Down; In any direction. You can specify the area for this type of events.
	Key event	The action is performed by pressing the key combination specified by the user.

	Dropdown list item selection	The action will be performed if one of the elements of the dropdown list is selected. Settings: ➢ selection of any element; ➢ selection of the empty element; ➢ selection of the definite element.
	Table cell selection	The action will be performed if one of the table cells is selected. You can select a cell in the table preview.
	Pop-up menu item selection	The action will be performed if an item in the popup menu is selected . For the items Radiobutton and Checkbox the additional settings are available: ➢ Item selected ➢ Item deselected; ➢ Any other changing of the state.
	Collapsible pane expanded	The action will be performed if the collapsible pane is collapsed/expanded Settings: ➢ Expanded; ➢ Collapsed; ➢ Any state change.

	Timer countdown completion	The action is performed when the countdown of the timer is completed.
	Timer event	The action will be performed when the new cycle of the timer begins. Settings: ➢ **-1** — each cycle; ➢ **0** — the first cycle; ➢ **1** — the second cycle; etc.
	Closing window	The action will be performed if the window is closed in any of the following ways: ➢ by the standard closing button; ➢ by pressing ***Alt+F4;*** ➢ with the help of the action ***Closing window*** Settings: ➢ ***before closing window*** — the action will be performed before closing the window; ➢ ***after closing window*** — the action will be performed after closing the window
	Tab selection	The action will be performed if one of the tabs of a tab-panel is selected. Select the checkbox ***Exact tab selection*** if you would like to select the concrete tab as the action trigger.

	Tree item selection	The action is performed when an item in the tree is selected. Select one of the following options (***Exact selecting elements):*** ➢ ***On any marked object selection*** — the action will be performed if any of the tree items is selected; ➢ ***On all marked object selection*** — the action will be performed when all elements of the tree are selected. If the checkbox is deselected, the action will be performed is anyone of the tree elements is selected
	Receiving a message	Receiving a message on the port specified by the user

6.4. Types of actions

The set of actions that can be added to an object depends upon its type. All actions can be divided into the *unique* (related to only one type of objects) and *repeated* (related to several types of objects).

All types of actions are described in the figure below.

Table 34. Types of actions

Icon	Action	Description
	Text change	Changing of formatting the text of the object. The text can be edited in the ***Text*** and ***HTML-editor.***
	Enable/Disable	Allows to enable/disable the activity of the selected object. The following options are available: • Enable • Disable • Change state to opposite
	Visibility	Allows to configure the visibility of objects. The following options are available: ➢ Show; ➢ Hid; ➢ Change state to opposite.
	Inserting an objects of clearing the cells of a dynamic layout	This action is described in details in 6.4.1. Inserting an object or clearing layout cells.

	Progress state change	The checkbox ***Indeterminate progress bar*** allows to change the state of the bar to the indeterminate. To specify the value of the progress bar enter it in the ***Progress*** field. If the checkbox ***Indeterminate progress bar*** is selected, the Progress field is blocked.
	Closing/Opening the window	The action is described in details 6.4.2. Opening/closing windows .
	Window pack	Allows to optimize the size of the window so that it be enough for containing th objects inserted into it. If a dynamic layout is inserted into the window, the zones whose size is indicated in percentage of the free space, will act as zones whose size as indicated as preferred.
	Moving/resizing window	The action is described in details in 6.4.3. Moving / resizing window.
	Show pop up menu	Allows to display the pop up menu over the object of the action

	Perform click	After the event specified by the user the object of the action will be clicked upon as if by the mouse. Settings ➢ Click delay Allows to enter the time (in milliseconds) after which the object will be clicked upon. 1000 milliseconds = 1 second
	Focus transfer	Allows to transfer the focus to the selected object
	Play	Allows to start playing a sound file
	Stop	Allows to stop playing a sound file
	Add icon to tray	Allows to add an icon to the tray
	Remove icon from tray	Allows to remove the icon from the tray
	Show tray message	The detailed description of this actions is given in **6.4.4 Actions for displaying the message in the tray icon**
	Change icon	The detailed description of this actions is given in **6.4.5. Changing the appearance of the tray icon**)
	Count action (for clocks)	This action is designed for timers. Settings: **1.** Start count (launches the timer) **2.** Pause count **3.** Stop count
	Tab selection	Allows to select a tab on the tabbed panel.

	Collapsing the panel	Allows to collapse/expand or change the state of a tabbed panel. Settings: ➢ Collapse; ➢ Expand; ➢ Change the state to opposite
	Sending a message	Allows to send a message to the port specified by the user.

6.4.1. Inserting an object or clearing layout cells

This action is very useful for creating

This action can work in three ways:

- inserting an object into layout cells;
- clearing the cells of the layout;
- inserting an object into the cells without clearing them

6.4.1.1. Inserting an object into layout cells

For inserting objects into cells the ***Object*** checkbox should be selected:

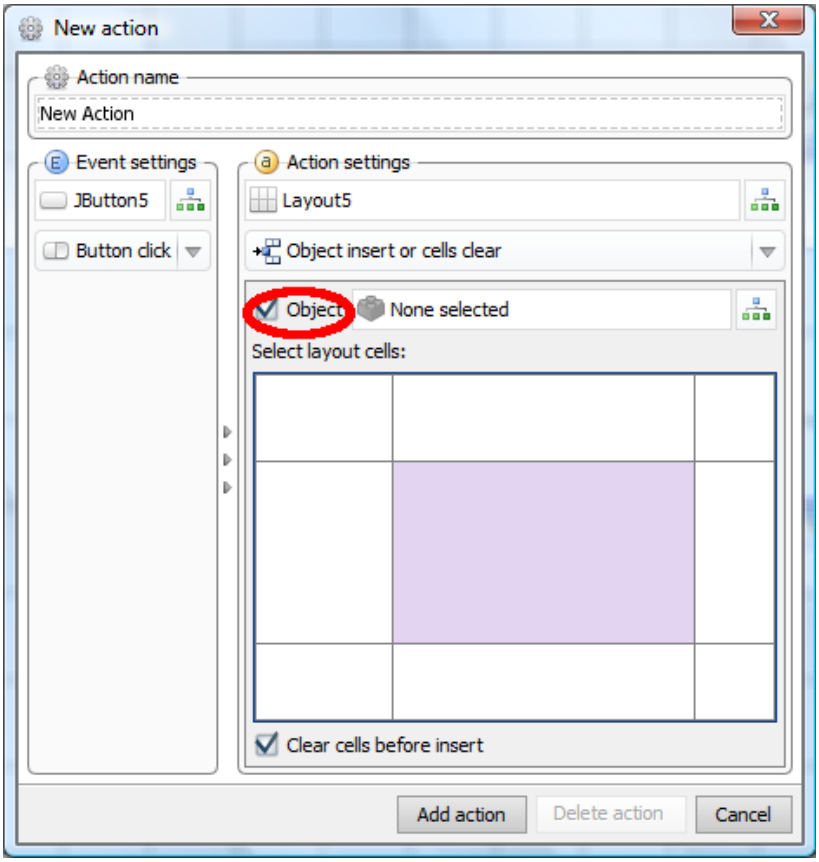


Figure 148. Settings for inserting action

Select the object to be inserted from the tree by pressing the button .
In the field located on the left of the button the name of the object being inserted will be displayed.

Select the item to insert the object in the sketch of the layout in the lower part of the window. Then press the ***Save*** button.

Example.
The task is to insert a calendar into the cells marked with red after pressing the appropriate buttin (figure 149):

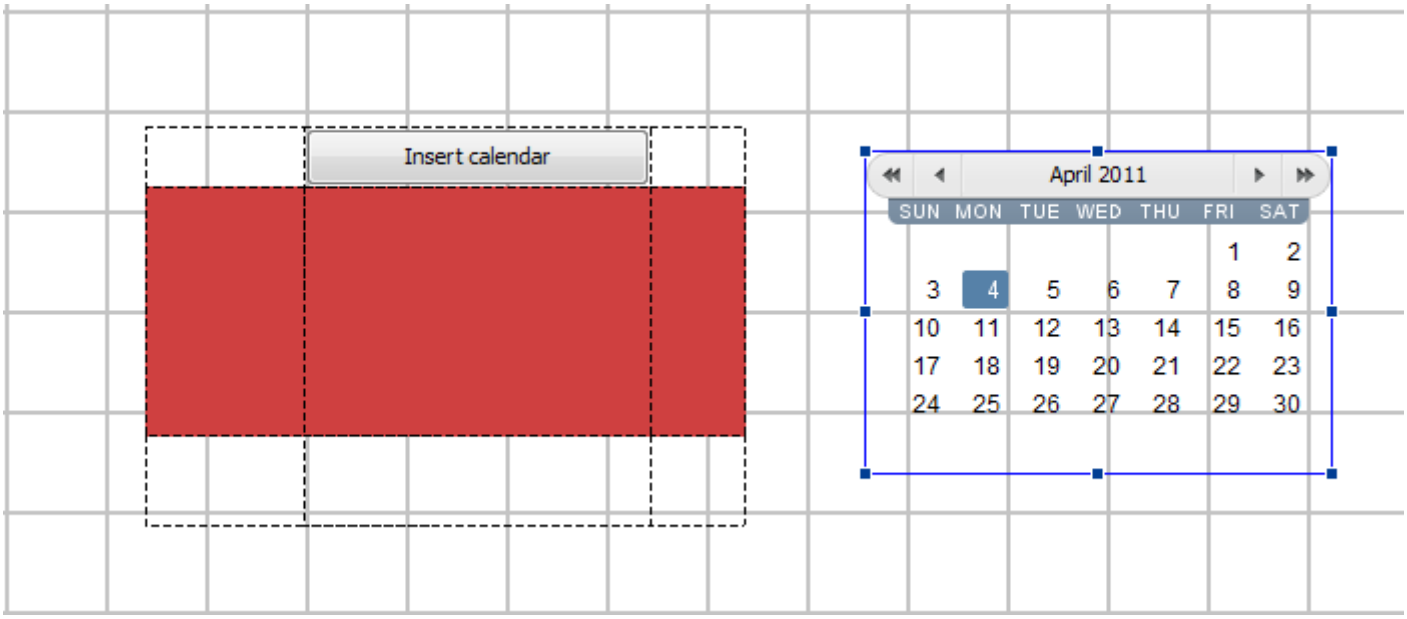


Figure 149. Inserting a calendar into layout cells

Add the action ***Object insert or cells clear*** and configure its settings as follows(fig. 150):

- the event object: VaadinButton5 (*Calendar)* ;
- the object of the action: dynamic layout

Select the Object checkbox and add VaadinCalendar2 from the tree-like structure. Press the button ***Add action.***

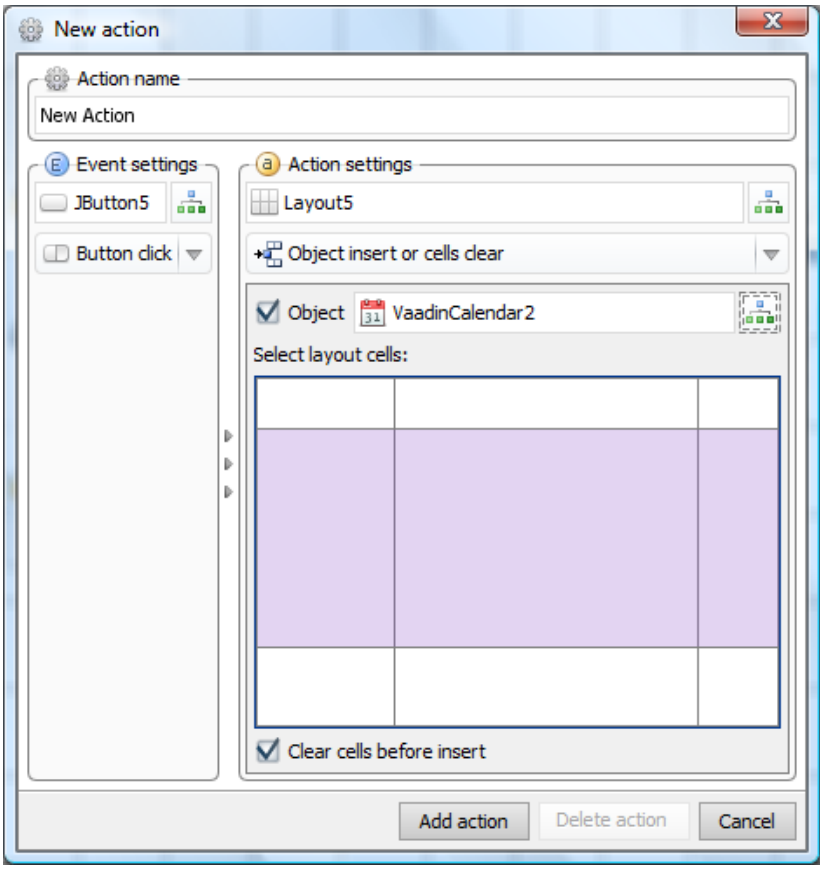


Figure 150. Adding an action

The work of the action is shown on the figure below:

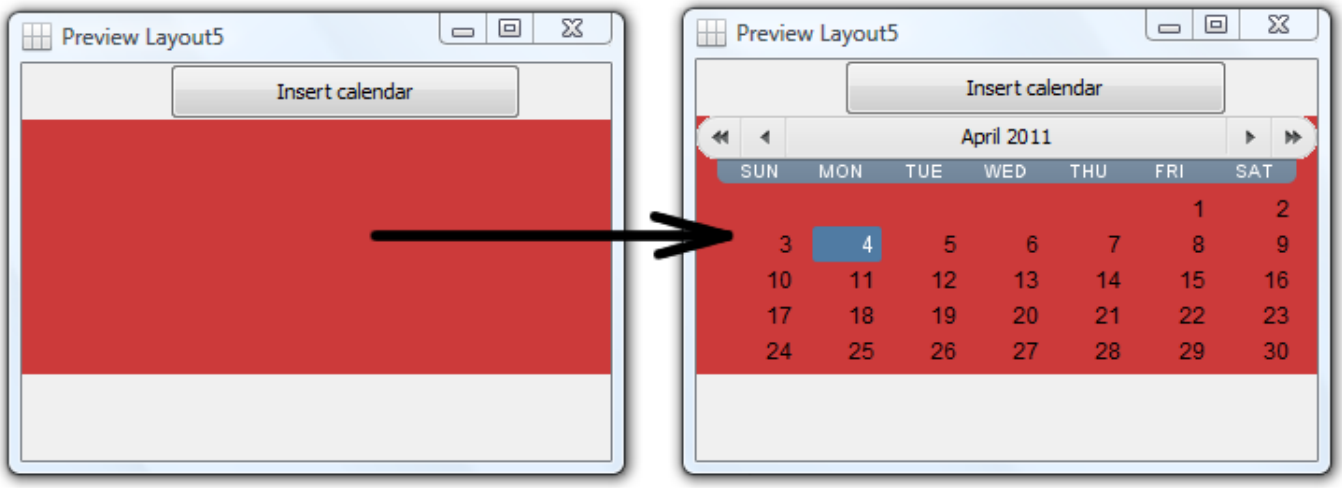


Figure 151. The work of the the action of inserting

6.4.1.2. Clearing layout cells

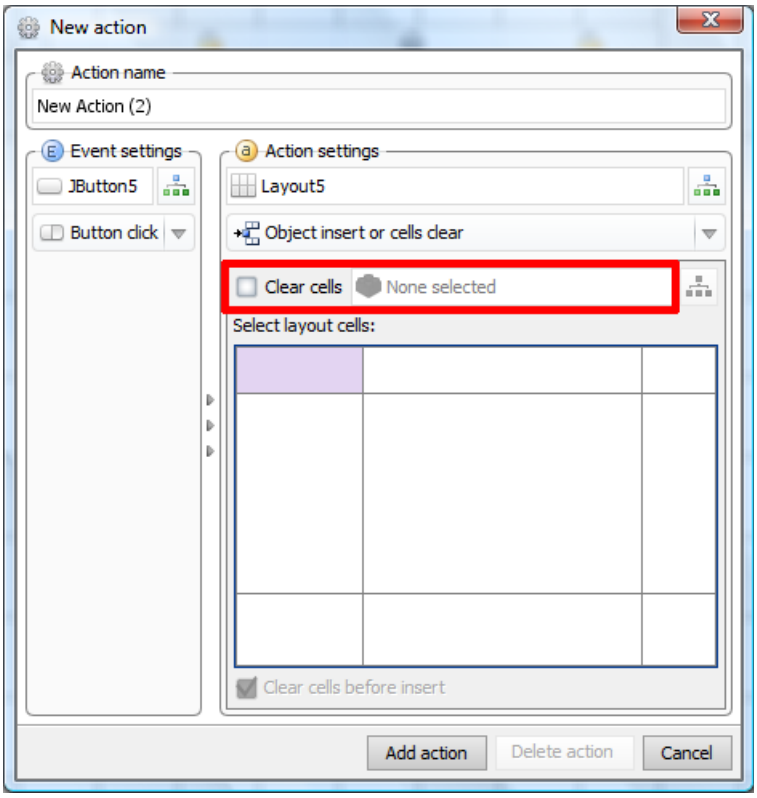


Figure 152.Clearing layout cells

To clear the cells deselect the checkbox ***Object***. The text of this checkbox will be changed into ***Clear cells*** and the object selection field will be blocked (figure 152).

In the sketch of the layout select the cells to be cleared. This action is configured similarly to the action of inserting objects into the layout described above.

6.4.1.3 Inserting an object without clearing cells

The default settings for the action of inserting suppose that the cells the inserting of a new object the cells are cleared. If you do not want to clear the cells, deselect the checkbox ***Clear cells before insert***. New objects will be inserted without deleting the existing content.

6.4.2. Opening/closing windows

Almost all interfaces include windows. It is impossible to create a realistic prototypes without actions related to windows.

The objects of the action:

- Window;
- Vaadin window.

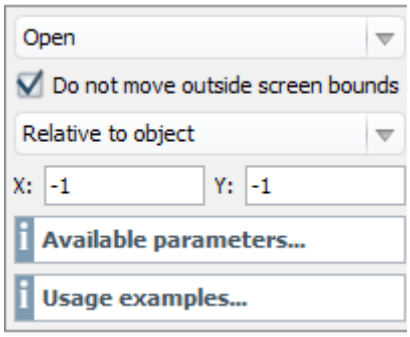


Figure 153. Settings for opening the window

Select the necessary option:

- Open;
- Close;
- Change state to the opposite.

If you choose the option ***Close*** all other fields will be blocked:

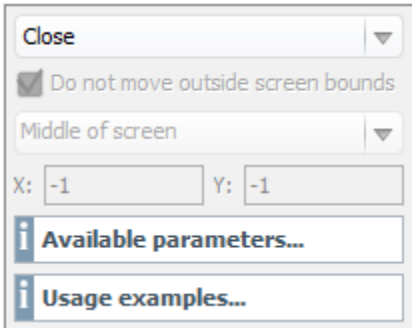


Figure 154.Settings for closing window

There is no need to configure any additional settings. Save the action and check it for correctness.

If you select the options ***Open*** or ***Change state to opposite***, the additional settings are available.

The checkbox ***Do not move outside screen bounds*** allows/prohibits to locate the window beyond the borders of the screen.

There are four options for locating the opening window on the screen:

- ***Under event object*** (the window opens right under the object of the event. The fields for setting coordinates are blocked).
- ***Middle of the screen*** (the window opens in the center of the screen. The fields for setting coordinates are blocked);
- ***Relative to object*** (the shifting of the object relative to the upper left point of the object of the actionis entered in coordinates x,y)
- ***Exact x,y coordinates*** (the shifting of the object relative to the upper left corner of the screen is entered in coordinates x, y).

Settings for the coordinates of object shifting

Coordinates ***X,Y*** can be specified by two ways:

- in exact number of pixels;
- in special parameters

Th coordinates in ***exact number of pixels*** can be set us:

- **0,0** for locating the upper left point of the window exactly in the left upper point of the event object (over the object) or in t he left upper point of the screen ;
- **-1,-1**, in this case:
  - if you select the option ***Relative to object*** the window will be located over the object;
  - if you select the option ***Exact x,y coordinates*** the coordinates of the object will remain the same to those of the last opening (if the window is opened for the first time, it will be located in the center of the screen).
- any integral number (including minus ones) for upward and leftward shifting

When setting the coordinates with ***special parameters*** you can use the following values:

- **{x}** и **{y}** — coordinates of the event object relative to the upper left point of the screen;
- **{width} и {height}** — the width and the height of the event object;
- **{window.width}** и **{window.height}** — the width and the height of the window being opened;
- **{screen.width}** и **{screen.height}** — the width and the height of the screen.

It is also possible to use the following ***mathematical operations***:

- **+** addition;
- **-** substraction;

- ***** multiplication;
- **/** division.

When you right-click on the window the context menu with all possible settings will appear.

Example:

- If the option ***Relative to object*** is selected :

  ➔ **X=0, Y={height}** — locating the window under the object :

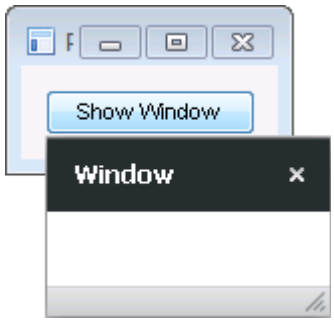


Figure 155. A window under the object

  ➔ **X={width}, Y=-{window.height}** — locating the window over the upper right corner of the object:

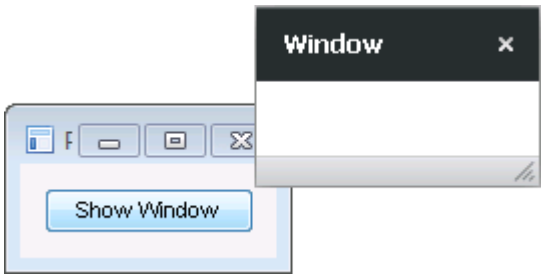


Figure 156. A window over the right upper corner

- If the option ***Exact x,y coordinates*** is selected :

  ➔ **X={screen.width}-{window.width}, Y={screen.height}-{window.height}** — locating the window in the lower right corner of the screen;

  ➔ **X={screen.width}/2-{window.width}/2, Y={screen.height}/2-{window.height}/2** — locating the window in the center of the screen;

  ➔ **X=0, Y=0** — locating the window in the left upper corner of the screen.

6.4.3. Moving / resizing window

This action allows to resize windows and change their position.

The object of the action:

- Window;
- Vaadin Window.

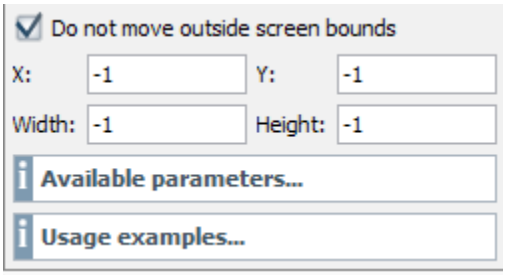


Figure 157. Settings for moving/resizing windows

The checkbox ***Do not move outside screen bounds*** allows/prohibits to locate the window beyond the borders of the screen.

For ***moving*** the window enter the coordinates ***X,Y***. Thus the shifting of the window being opened relativ to the upper left corner is configured.

To ***resize the window*** enter the ***width*** and the ***height***.

Configuring settings for moving/resizing windows

Coordinates ***X,Y*** as well as the ***width*** and the ***height*** can be configured in two ways:

- in exact number of pixels;
- with special parameters.

The coordinates in ***exact number of pixels*** can be entered as follows:

- **0,0:**
  - ***X,Y*** for moving the window to the left-upper corner of the screen;
  - ***width, height*** for reducing the size of the window to smallest possible one.

- **-1,-1**, in this case the action will not be moved or resized;
- any integer number for the indication of the position or the size of the window.

When configuring the coordinates ***with special parametes*** you can use the following values:

- **{x}** и **{y}** — a coordinates of the position of the window relative to the upper left point of the screen;
- **{width}** и **{height}** — the width and the height of the window;
- **{screen.width}** и **{screen.height}** — he width and the height of the screen.

It is also possible to use the following ***mathematical operations***:

- **+** addition;
- **-** substraction;
- ***** multiplication;
- / division.

When you right-click on the field, the context menu with all settings will appear. Click on the necessary item to insert it in the field being edited.

Examples:

- **X={x}+{width}, Y={y}+{height}** — moving window rightwards and downwards from the current position:

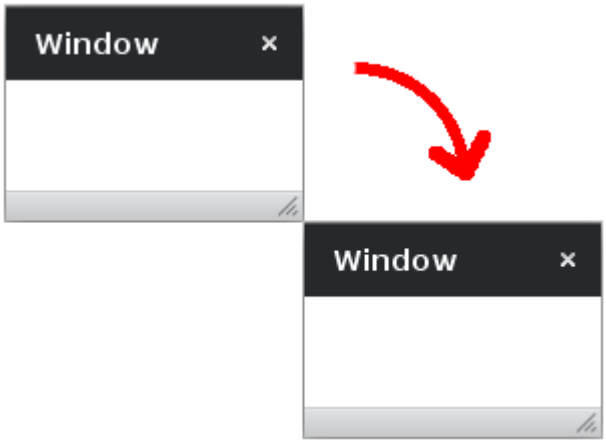


Figure 158. Moving the window rightwards and downwards

- **Width={Width}, Height={Width}** — makes the width equal to the height;
- **Width={Width}*2, Height={Width}*2** — doubles the size of the window;

- **X=0, Y=0, Width={screen.width}, Height={screen.height}** — the window will be expanded to the size of the screen;
- **X={x}-100, Y={y}-200** — the window will be moved 100 pixel leftward на 200 pixels upward from the current position.

6.4.4 Actions for displaying the message in the tray icon

The object of the action: tray icon

You can select one of the following types of the message displayed:

- error;
- warning;
- information;
- message

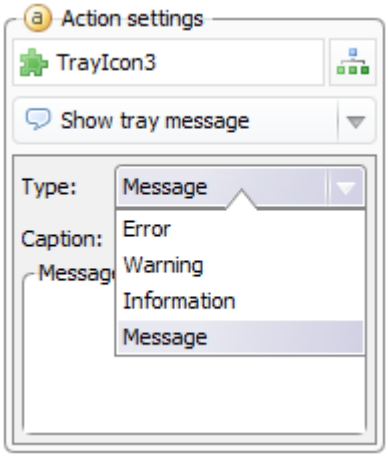


Figure 159. Selecting the type of the message to be displayed in the tray.

.The text entered in the ***Caption*** field is displayed in bold type as the name of the message appearing in the tray.

The text of the message itself is entered in the ***Message*** field.

If you select ***Error*** as the type of the message and configure the settings as it is shown on the figure below:

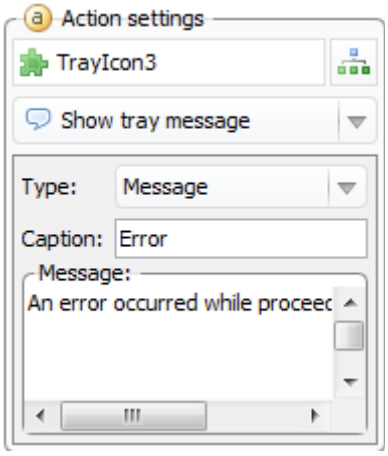


Figure 160. Setting for displaying the message in the tray

the following message in the tray should appear after configuring this settings:

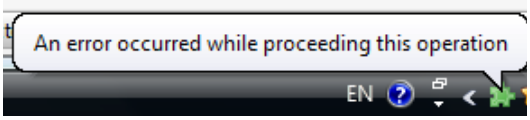


Figure 161. A message in the tray

NB: The actions for the tray icon will be performed only if the icon has been added to the tray by another action.

6.4.5. Changing the appearance of the tray icon

This action allows to change the image used as the icon in the tray .

Object of the action: tray icon

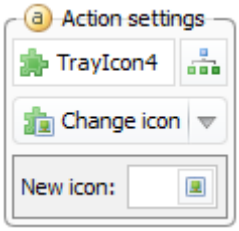


Figure 162. Setting for changing the tray icon.

Press the arrow near the ***Change icon*** field. The standard tool for selecting images will open(*Cf.* 4.2.2.2. Image selection tool). Select the new image for the icon.

6.4.6. Connecting the prototype with other prototypes and applications

GUI Machine allows to connect the prototype with other prototypes and applications. Select the component ***Connector object*** from the ***Extended*** set. The connector object can become the target of actions of different types (pressing a button, selecting a checkbox, etc.)
Example

The action of sending a message by pressing a button is configured in the following way:

1. Add a button and a connector object on the edit area. Select the connector object as the target object of the action.
2. In action settings indicate the number of the port and enter the text of the message to be sent:

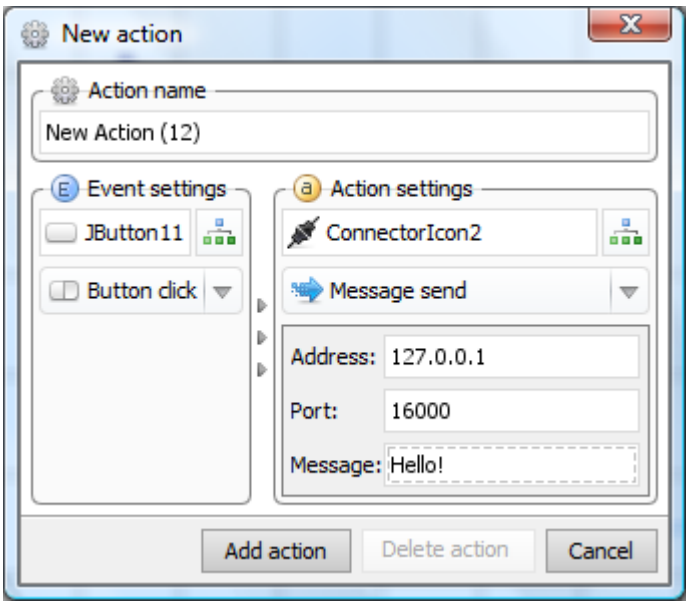


Figure 163. Settings for sending a message

If you want to trigger an action by receiving a message on the specified port do the following:

1. In the event settings for the connector object specify the event *Receiving a message* and enter the text.
2. In action settings specify the action to be performed after receiving the message. If you want the action to be performed after the concrete message is received, select the checkbox ***Certain message***(figure 164):

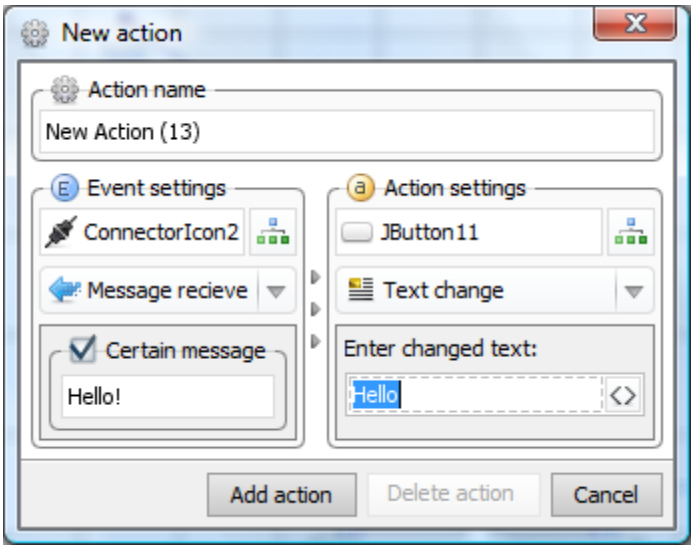


Figure 164. Settings for receiving a message

7. Real-time preview of prototypes

7.1 Previewing objects

7.1.1 Previewing objects in GUI Machine

This tool allows to preview prototypes, their elements and single objects in real-time mode. It also allows to control the work of objects and make screenshots of the interfaces. During the preview prototypes look like real working programs.

The look of the prototype being previewed differs from that on the edit area. It is recommended to preview prototypes when working upon them.

Not all objects can be previewed.
The following objects cannot be previewed:

- ✗ Pop-up menus;
- ✗ Timer;
- ✗ Tray icon;
- ✗ Connector object;
- ✗ Audio player.

There are several ways to preview the selected object;

- ➢ by opening the context menu of the object and selecting the **Preview** item:

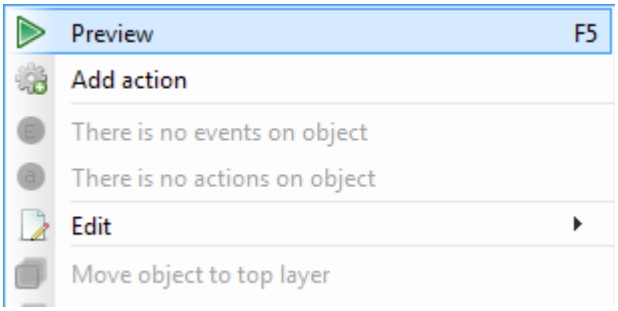


Figure 165.Launching preview in the context menu

- ➢ By pressing the button in the upper toolbar:

Figure 166. The button for launching preview in the upper toolbar

- By pressing ***F5***

If there are several objects on the edit area, it is impossible to preview them all at the same time. However, the objects can be previewed separately.

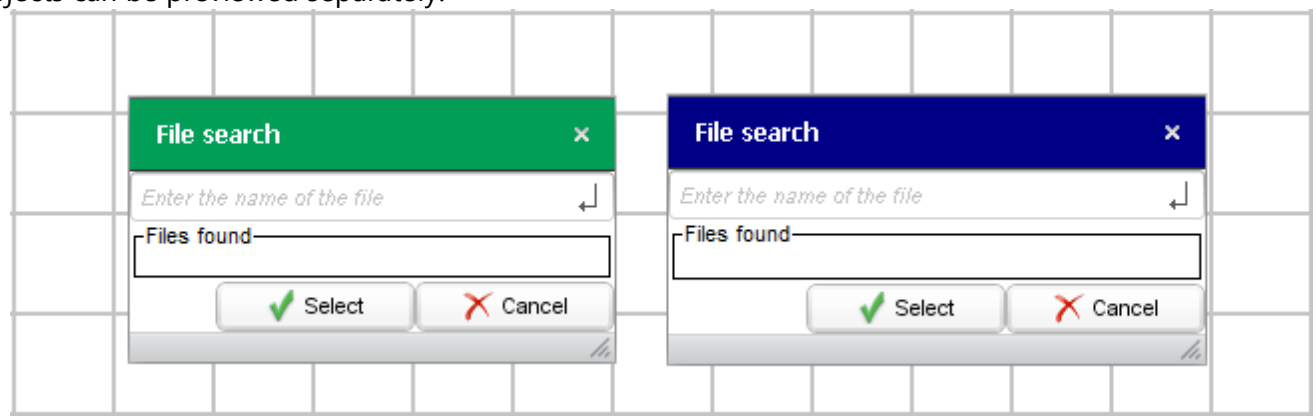


Figure 167. Preview of an object with different properties

You can create the bookmark of the object for the quick launch. Select the object and press the button in the upper toolbar**.**

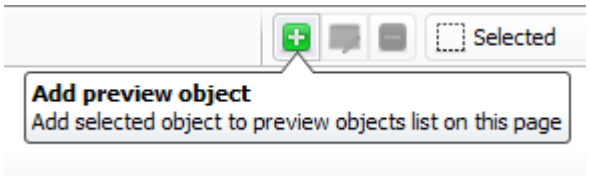


Figure 168. Creating a bookmark

The bookmark will be added to the list. To launch the preview select the necessary object from the dropdown list and press the button .
To remove the bookmark select the object and press the button .
To return to the default preview mode choose the item ***Selected*** in the dropdown list.
You can preview either interface or its separate parts:

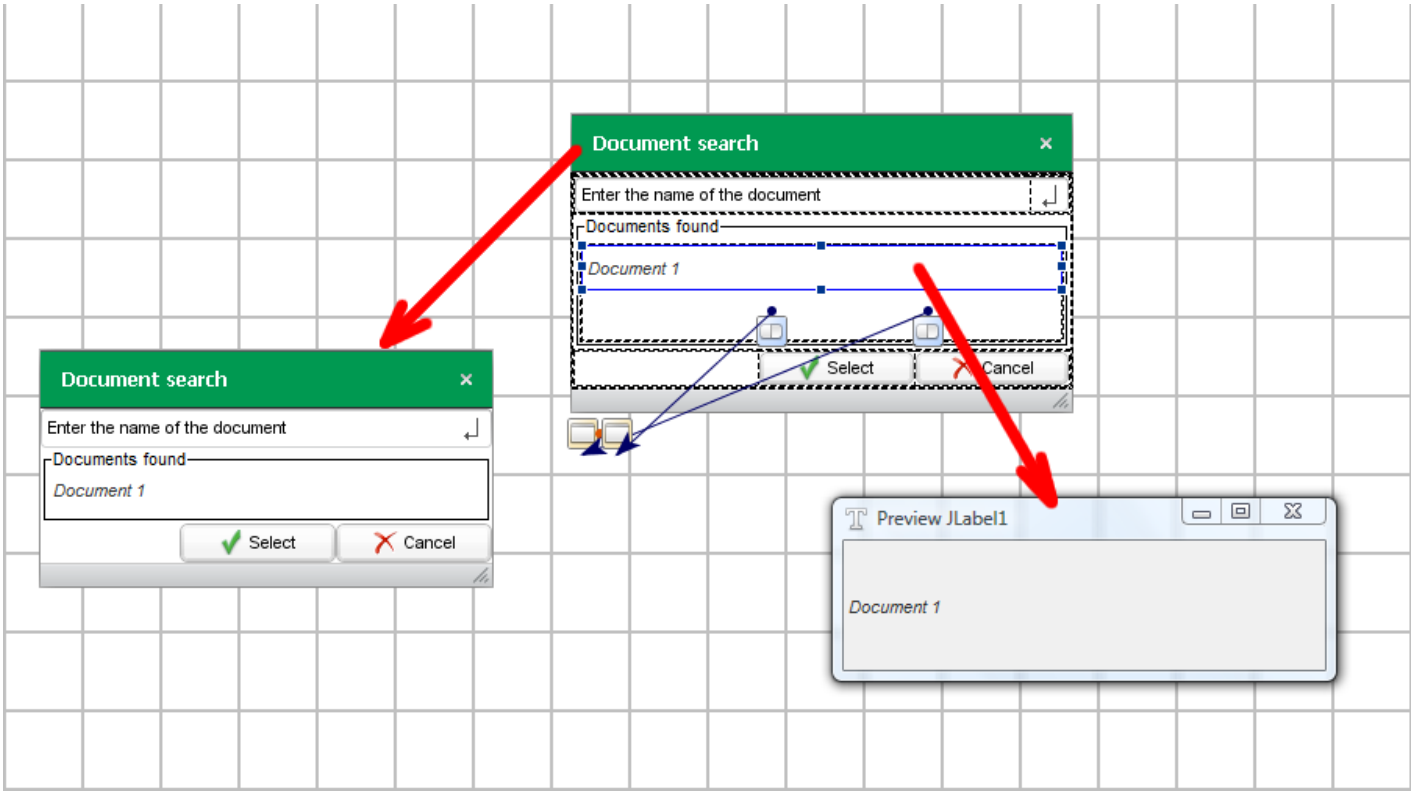


Figure 169. Preview of the interface and of its parts

To stop the preview it is sufficient to close the window of the prototype. If the window cannot be closed in the standard fashion, press ***Alt+F4*.**

It usually takes a long time to launch the preview of objects containing numerous objects and actions.

7.1.2 Previewing objects in GUI Machine Viewer

GUI Machine Viewer allows to preview prototypes saved in *.gdv format without launching GUI Machine. It is installed automatically when installing the program. It is sufficient to double-click on a *.gdv file to launch its preview.
GUI Machine Viewer can also be launched from the Start menu (**Start→Programs→GUI Machine→GUI Machine Viewer**). Select an object for preview in the window that should open:

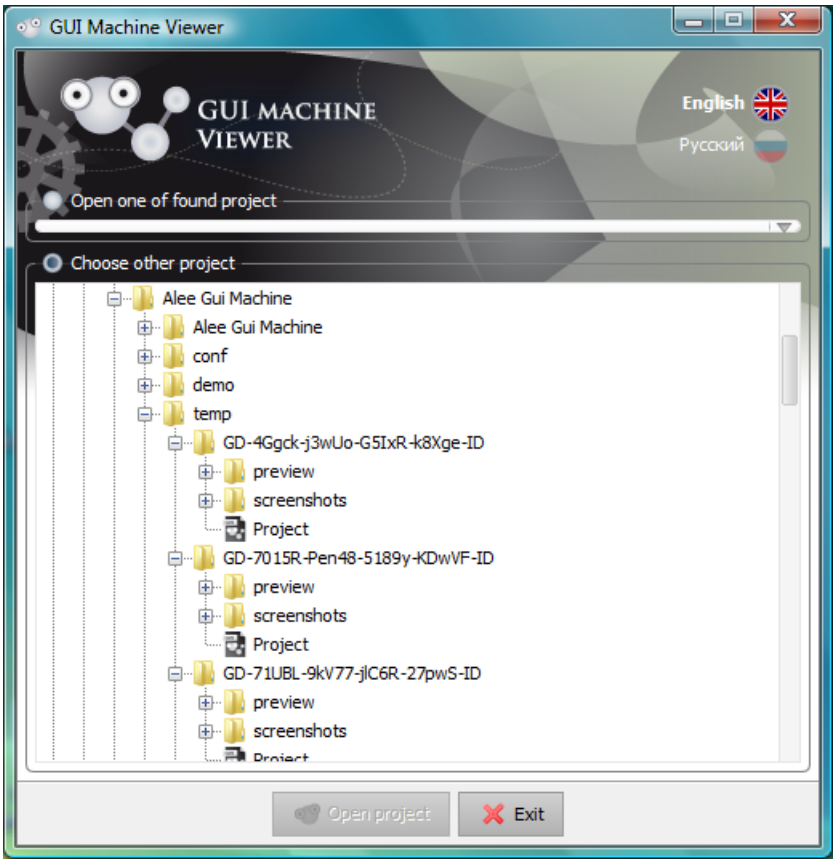


Figure 170. Selecting an object for preview

Select the object and press the ***Open project button.***
Depending on project setting either the object marked as the main will be launched or the window for selecting the object for the preview will be opened:

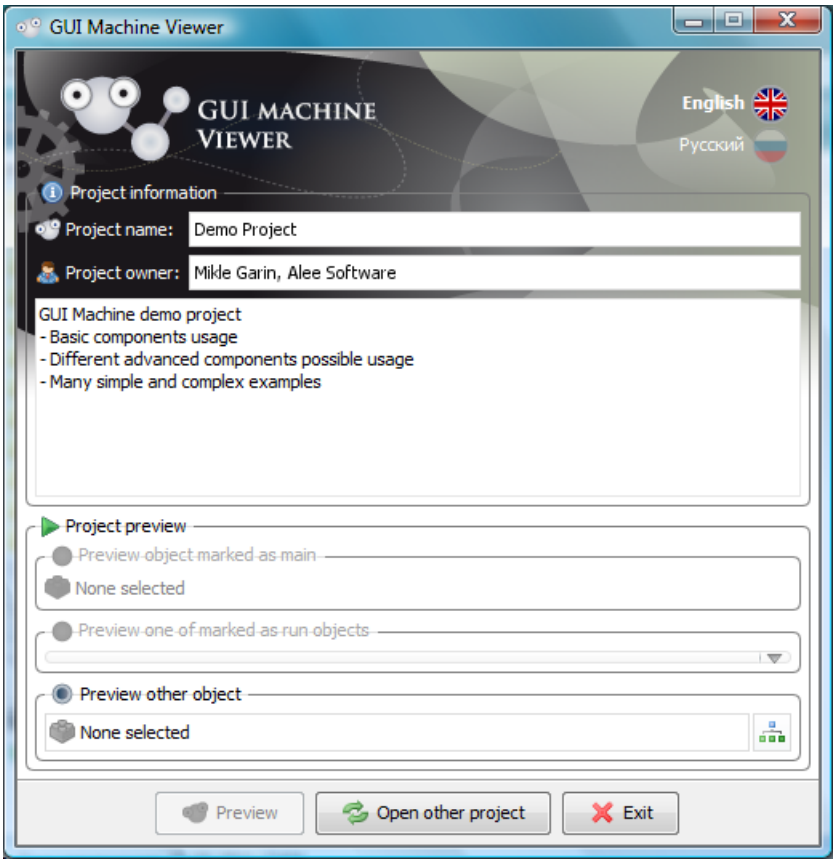


Figure 171. Settings for object preview in GUI Machine Viewer.

Selecting the radiobutton ***Preview other object*** you can preview any other object of the project:

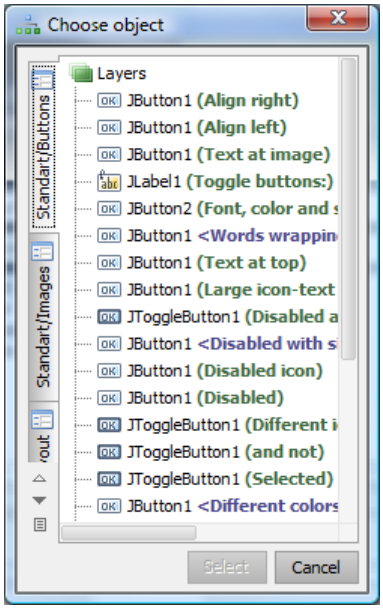


Figure 172.Selecting the next object for preview

7.2 Export tools

7.2.1 Exporting prototypes

Prototypes can be exported and launched as fully-functional applications. Select **File→Export prototype** in the main menu. The following window should open :

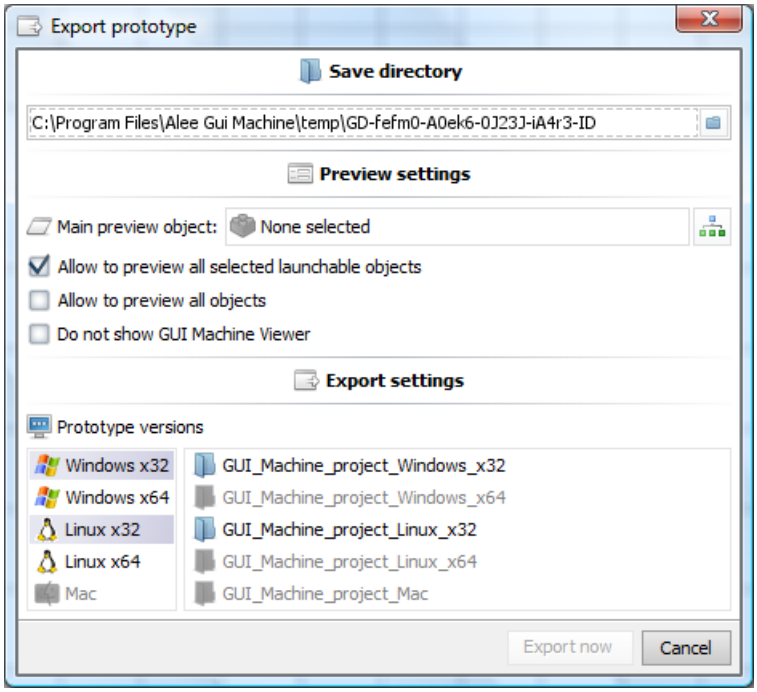


Figure 173.Settings for exporting prototypes

Specify the folder in which you would like to save the prototype in the field ***Save directory***. Configure the settings for the preview of the prototype. You can select any of the objects included in the prototype as the main launchable object.

Select the operating system under which the prototype will be launched in ***Export settings***. You can select several operating systems at once. Press the ***Export now*** button. The following window should appear:

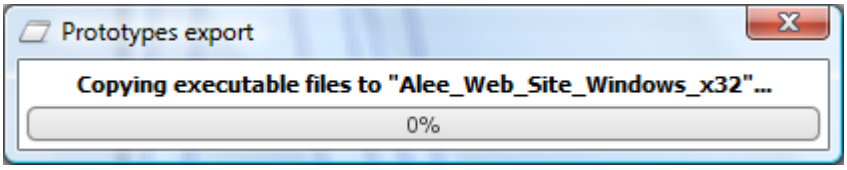


Figure 174. The progress of the export of the prototype

After exporting the prototype is saved in the directory named after the operating system. If you select several folders will be created.

The exported prototype can be previewed on any other computer. It is not necessary to install GUI Machine or GUI Machine Viewer: just open the folder and launch the file **designreviewer.exe** or **designreviewer.sh.**

7.2.2. Exporting images

The image export tool allows to make configurable screenshots of the edit area.

The tool is launched:

- by selecting ***File*** → ***Save images*** in the main menu ;
- by pressing ***Ctrl+Q***.

The following window will open:

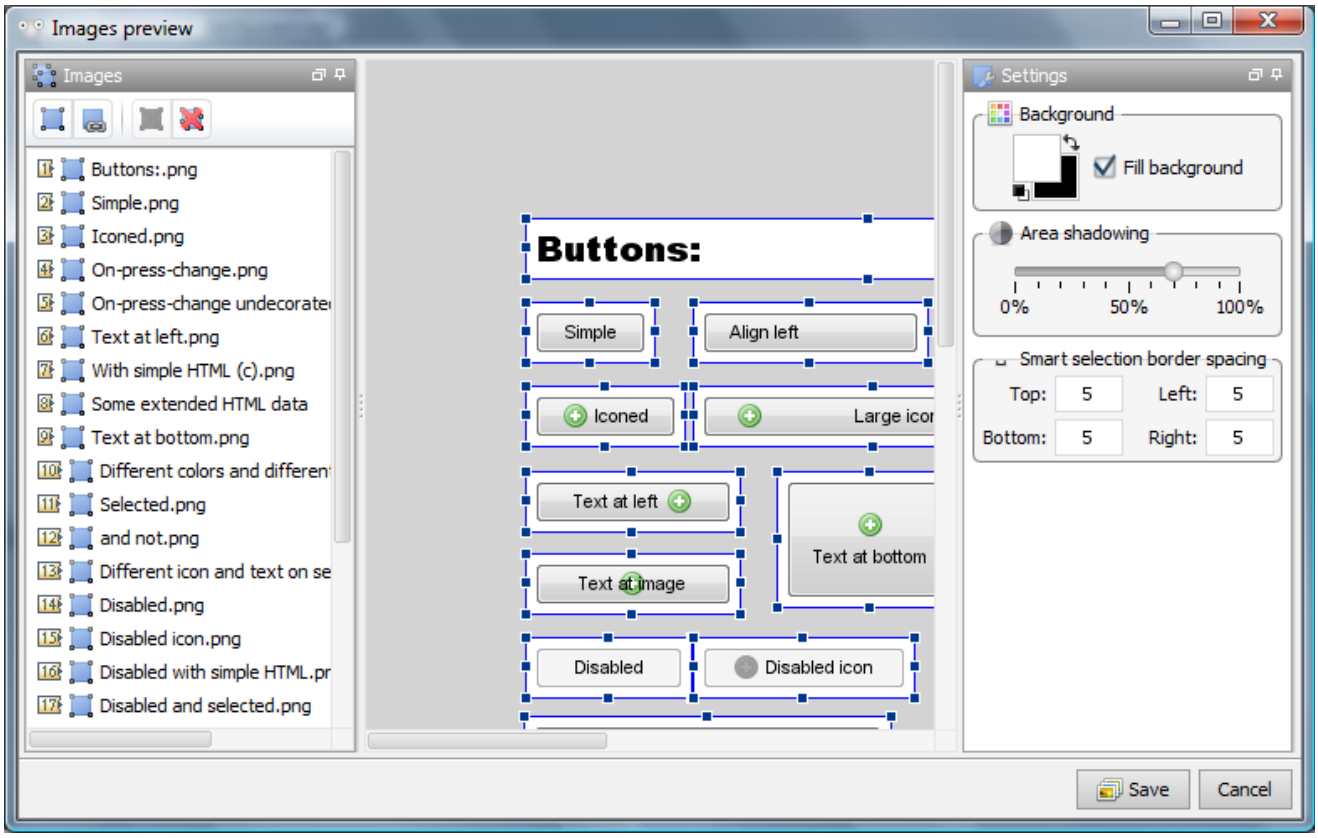


Figure 175. The preview of the edit area

The main window of the tool can be divided into three parts:

- the ***Images*** panel ;
- the ***Settings*** panel;
- the workspace.

The workspace

The workspace is a snapshot of the part of the edit area occupied by objects. The part not containing objects is not displayed.
You can navigate the snapshot in one of the following ways:

- by pressing the middle mouse button;
- by holding pressing the left mouse button and holding the ***Space*** key;
- by pressing the arrow keys and ***Ctrl+Home, Ctrl+End***.

The blue box on the workspace displays the borders of the snapshot. It is possible to move the box by pressing the left mouse button and to resize it. The area outside the box is covered by the semitransparent layer. The degree of opacity of this level can be configured.

If there are several snapshots on the workspace, each of them is displayed in a box. The box of every snapshot can be modified.

The first snapshot is made automatically at the launch of the tool. Its box outlines the region occupied by all objects,

The image panel

The tools of the panel are described in the table below.

Table 35. The tools of the Image panel

Button	Function
	Add image
	Add smart image
	Deletee selected image
	Delete all images

The list of snapshots is displayed under the toolbar. To rename a snapshot double-click ob it and enter the new name in the window that will open:

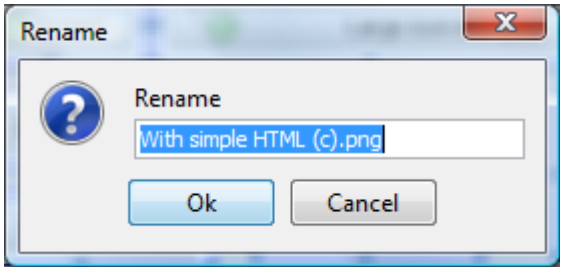
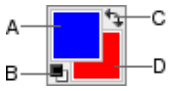


Figure 176.Renaming a snapshot

The Settings panel

Background - the settings for the background.
The checkbox ***Fill background*** allows to enable/disable the displaying of the background. If the checkbox is deselected, the alpha-layer is displayed and the settings for the background color are blocked.

Settings for the background color:

	**A.** The field for selecting the main background color **B.** Default colors (black and white); **C.** Switching between colors; **D.** The field for selecting the additional background coloer

Area shadowing — the opacity of the shadowing layer (from 0% up to 100%, where 0% is absolutely transparent, 100% is absolutely opaque).

Smart selection border spacing — settings for configuring smart selection borders.
The spacing can be configured by entering the size in the appropriate fields:

Top — the upper spacing ;
Left — the left spacing;
Bottom — the bottom spacing ;
Right — the right spacing .

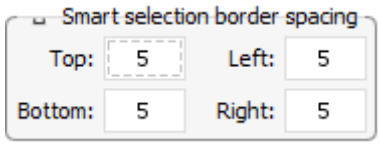


Figure 177. Configuring the spacing

Making a snapshot

To make a new snapshot:

- press the snapshot creation button or the ***A*** key;
- holding the left mouse button select the snapshot area on the workspace.

The new snapshot will be added to the list.

Creating smart images

With smart snapshots you need not select the area manually, for it is selected automatically when clicking on the object. The area is set above the object that has been clicked. The spacing settings are taken into consideration.

To make a smart snapshot:

- press the button for creating smart snapshots or the ***S*** key;
- on the workspace click on the object the snapshot of which you would like to add.

An example of creating a smart snapshot is given on the figure below. The following objects have been left-clicked upon successively :

- ➔ the ***Align left*** button;
- ➔ the ***Large icon-text gap button***;
- ➔ the ***Text at bottom*** button.

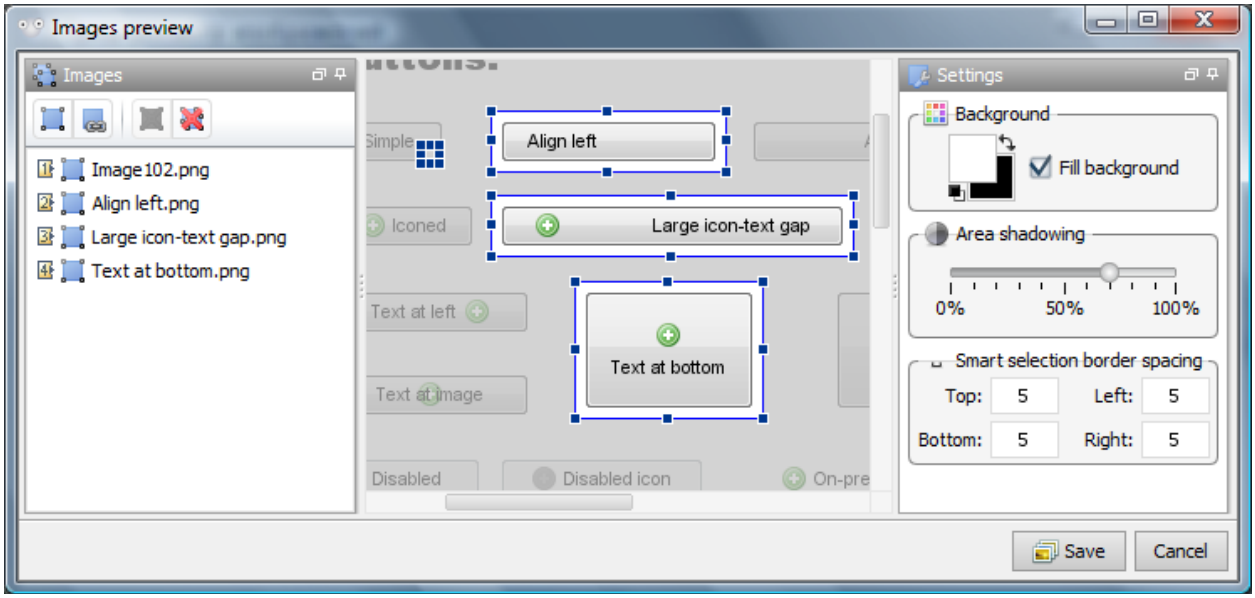


Figure 178. Making a smart snapshot

As the spacing was set as (5; 5; 5; 5), these settings were taken into consideration. Three new images have been added to the list. Smart snapshots are named automatically after one of the object properties:

1. Text;
2. Text on selection;
3. Border header ;
4. Tooltip text;
5. The name of the object

In the list of properties their priority is taken into consideration. If all properties are configured, the snapshot is name after the text of the object. If the value of the ***Text*** property is empty, the object is named after the ***Text on selection***, and so on.

Saving images

After creating the snapshot press the ***Save*** button in the lower right corner. Select the location for saving the snapshots in the window that will open and press the ***Save*** button.

If the names of the files in the selected directory coincide with those of the created screenshots, the following window will open:

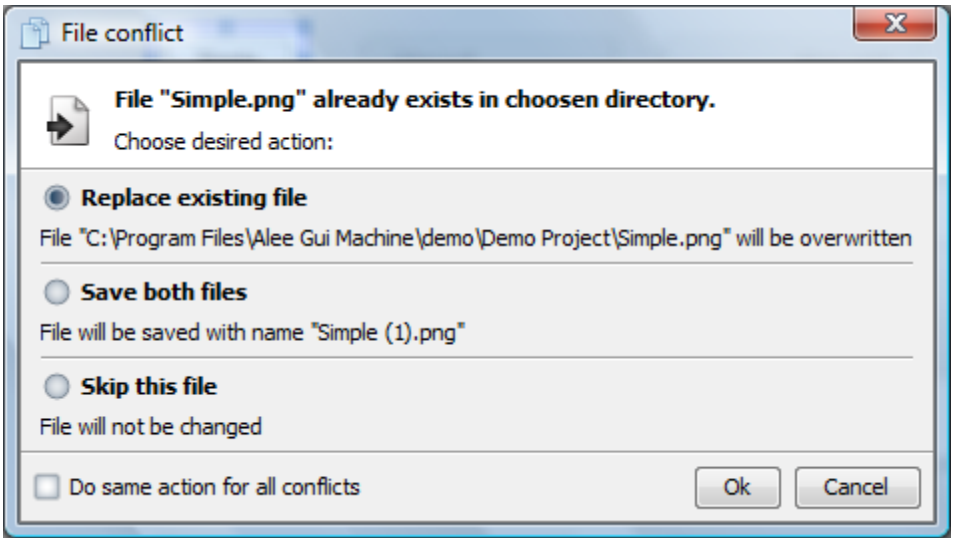


Figure 179. File conflict

You can do the following:

- **Replace the existing file** — the existing file will be replaced by the new one;
- **Save both files** — the both files will be saved. The new snapshot will be saved with the new name.
- **Skip this file** — the old file will remain unchanged and the new one will not be saved..

Select the checkbox ***Do same action for all conflicts*** in order to repeat the selected operations in case of future conflicts.

7.2.3 Exporting screenshots

The screenshot making tool allows to create and export the screenshots of the prototype automatically.
Select the item **Export screenshots** in the **File** menu.
The window containing the previews of all objects saved for quick preview launch will open:

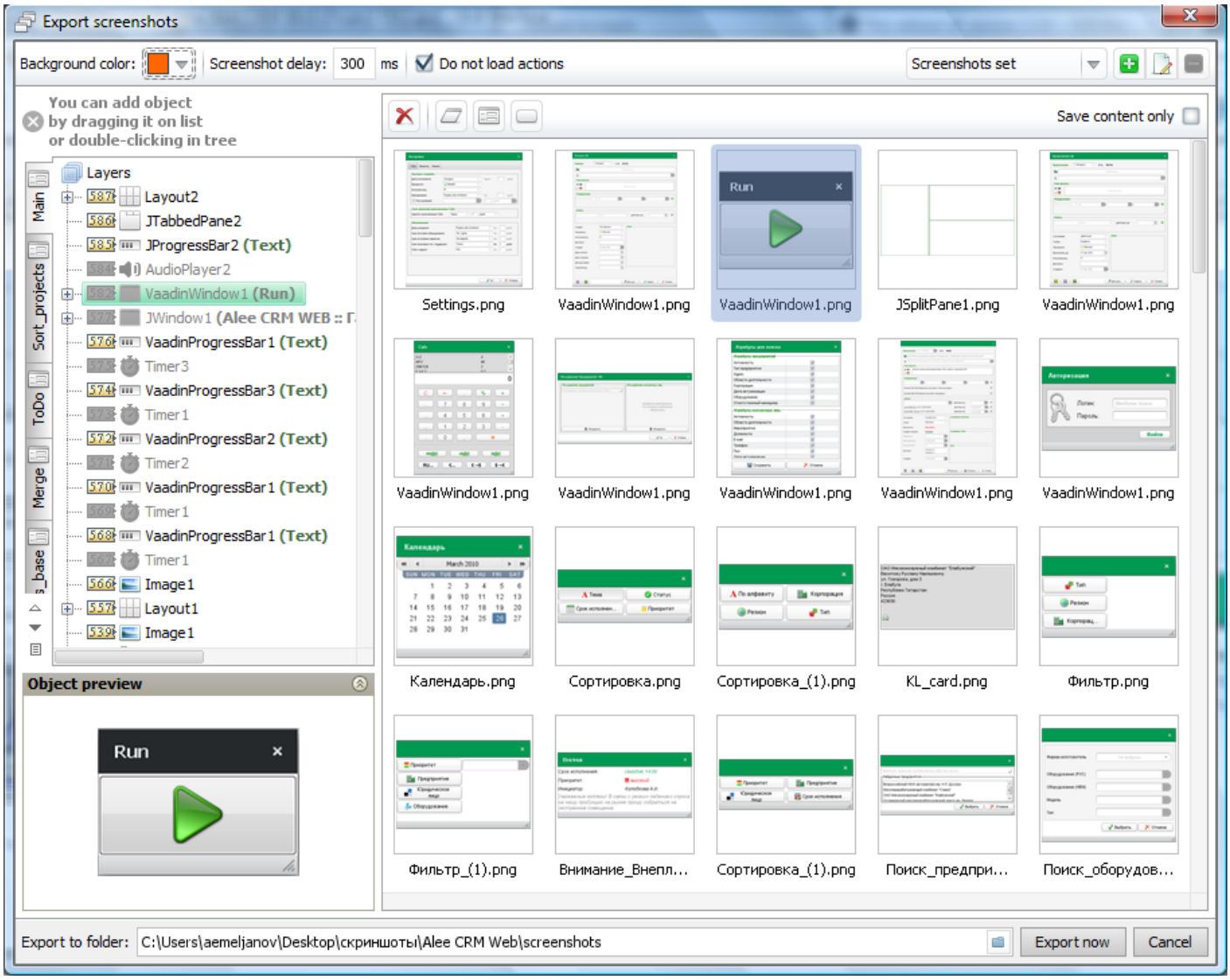


Figure 180.The main window of the screenshot export tool

Drag the objects whose screenshots you would like to make to the central part of the window. Delete the objects whose screenshots you do not need by clicking on the button or pressing the Delete key. The objects can be added/removed by double-clicking on their icons in the tree. The button allows to add all the objects saved for quick launch by a single click. The button allows to add all the windows of the project by a single click.

The button allows to add all the unlinked object of the project by a single click. If you need to get screenshots without window headers and borders, select the checkbox **Save content only.**

Select the color for the background of the windows being shot in the dropdown menu **Background color.** Enter the time interval between the object launch and making its screenshot in the field **Screenshot delay.**

If you need to use the actions in the launched objects, deselect the checkbox **Do not load actions.**

All screenshots are combined into sets and saved together with the project. The saved sets can be opened even on other computers. You can select the sets of screenshots in the dropdown menu. Press the button to rename the set of screenshots. You can add a new set of screenshots by pressing the button. To delete a set of screenshot select it and press the button.

Select a folder to save the screenshots at the bottom of the window.

Click on the **Export** button. The screen will be painted with the background color you selected and the windows will be opened, shot and closed automatically. When the work is finished the folder in which the screenshots are saved will be opened.

8. Context menu

The context menu allows to access to the most frequently used tools quickly and to perform some operations with objects.

To open the context menu for an object (or for a group of objects) select them and press the right mouse button. If you do not want the context menu to be related to any particular object, do not select any object on the edit area and press the right button.
The context menu is displayed for the object being selected at the given moment. If you approach the cursor to an object which is not selected it is highlighted. When you press the right mouse button, it will be selected and its context menu will be displayed.

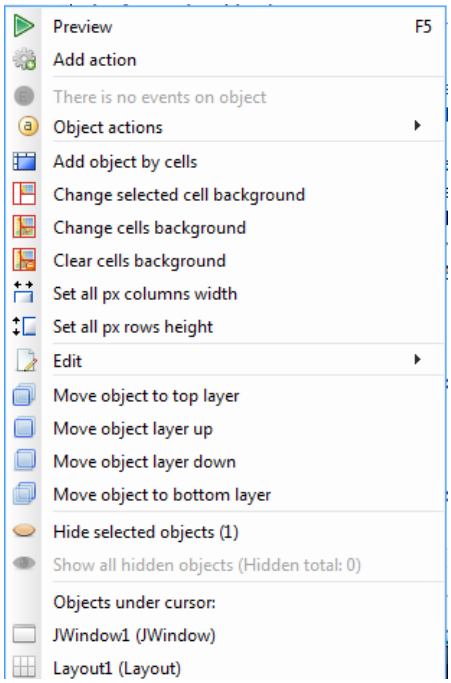


Figure 181. The context menu

For some objects certain items of the context menu can be blocked.

The detailed information about the items of the context menu is given in the table below.

Table 36. The items of the context menu

Icon	Item	Description
	Preview	Launches the preview of the selected object
	Add actions	Allows to specify the selected object as the trigger of an action. After selecting this item the target object is selected.
	Object events	Displays the events related to the object
	Object actions	Displays the actions related to the object
	Edit	
	Edit → Undo	Allows to cancel the last of the previously performed operations.
	Edit → Repeat	Brings the last canceled operation back.
	Edit → Cut (x)	Allows to cut the selected objects; x stands for the number of objects
	Edit → Copy (x)	Allows to copy the selected objects; x stands for the number of objects
	Edit → Paste	Allows to paste objects from the clipboard
	Edit → Clone selected objects	Clones the selected object
	Edit → Remove selected objects(x)	Allows to remove the selected objects; x stands for the number of objects
	Hide selected objects (x)	Allows to hide the selected objects; x stands for the number of objects

	Show all hidden objects (Total hidden: x)	Allows to show all hidden objects on the edit area; x stands for the number of hidden objects.
	Move object to top layer	Allows to bring the selected object on the top layer
	Move one layer up	Allows to raise the selected object on one layer.
	Move one layer down (Bring the object	Brings the selected object one layer down
	Move object to bottom layer	Brings the selected object to the bottom layer
	Aligning	Allows to align object and configure the settings for the alignment. This item is equal to the appropriate items in **Tools and Frames** menu.

In the ***Objects under cursor*** section of the context menu the objects located beyond the mouse cursor are numbered. The objects are arranged by layers (from the bottom layer to the lower one).

The maximal number of objects displayed in the context menu is 10. If there are more than 10 objects under cursor, the context menu looks as it is shown on the figure below:

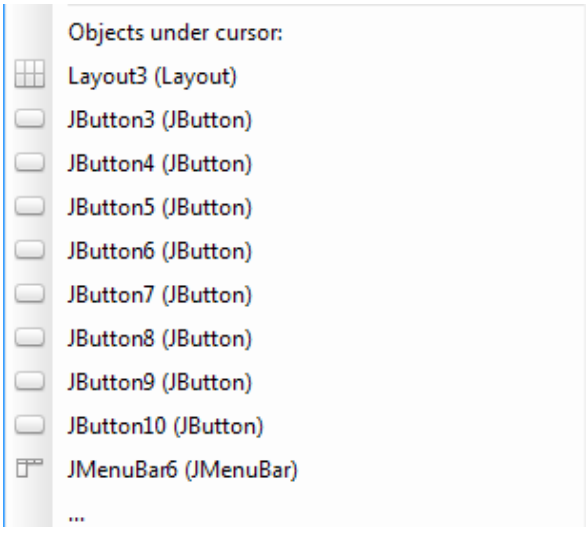


Figure 182. The lower section of the context menu

To display other objects click on **...** (dots) .

The following window will open:

Figure 183. Objects under mouse cursor

If the objects are linked to each other and form a tree, they are displayed as tree-like structure:

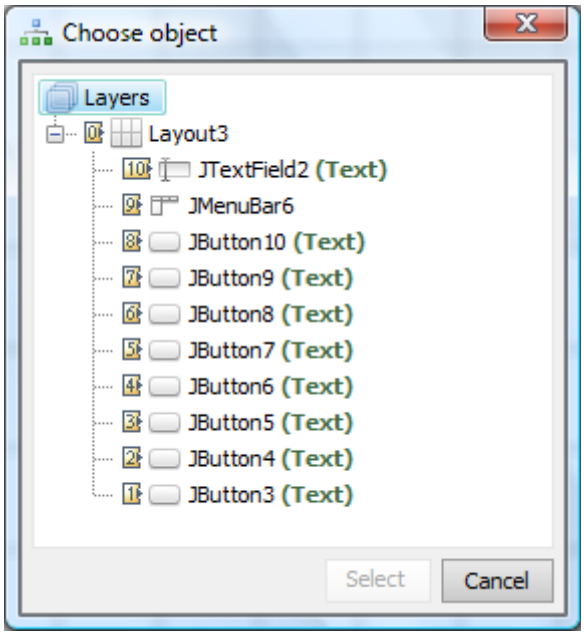


Figure 184. The tree of objects under the mouse cursor

For some types of objects the additional items are added to the context menu.

Additional items for menus

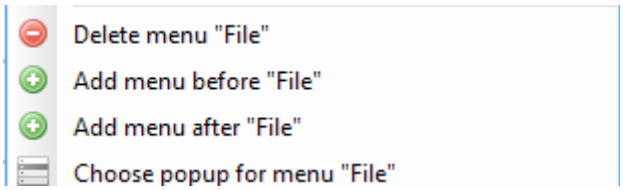


Figure 185. Additional item for menus

The detailed description of the additional items is given in the table below.

Table 37. Additional items of the context menu for menus

Icon	Item	Description
	Delete menu <name>	Allows to remove the selected menue item
	Add menu before<name>»	Allows to add a new item preceding the selected item. Double-click on the item to rename it.
	Add menu after <name>	Allows to add a new item following the selected item. Double-click on the item to rename it.
	Select popup menu for the item<name>	Allows to choose the pop up menu for the selected item. Select this item and click on the pop up menu on the edit area.

Additional item for placeholders

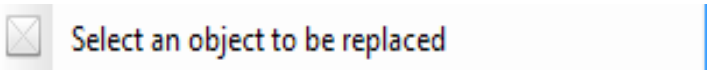


Figure 186. The additional item in the context menu for placeholders

This item allows to select an object to be replaced by the placeholder. After selected this item click on the object on the edit area.
If an object is being replaced by the placeholder, two more items are added:

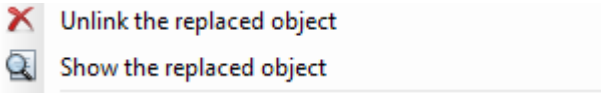


Figure187. Additional items for the placeholder replacing an object

If you select the item Unlink the replaced object the link between the placeholder and the object it replaces will be canceled.

Additional context menu items for windows

For windows with no menus linked two more items are added to the context menu:

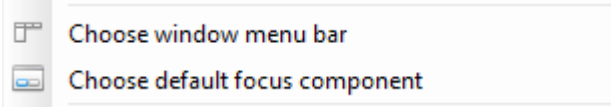


Figure 188. The additional context menu items for windows without menus

The item **Choose window menu bar** allows to select a menu for the window. Click on the menu on the edit area after selecting this item.

The item **Choose default focus component** allows to select the element of the window to which the focus will be transferred on opening.

If a menu is linked to the window, two more items are added:

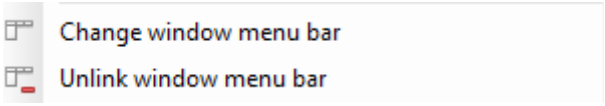


Figure 189. Additional items for windows containing menus

The item **Change window menu bar** allows to replace the existing menu by a new one. Click on a new menu on the edit area after selecting this item.

The item **Unlink menu bar** allows to cancel the link between the window and its menu bar.

Additional context menu items for images

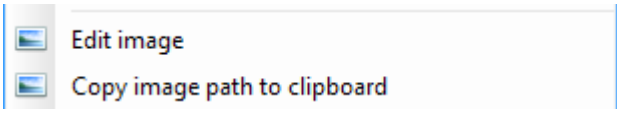


Figure 190. Additional context menu items for images

Select the item ***Edit image*** to launch the image editor. If you want to copy the path to the image, select the appropriate item.

Additional context menu items for dynamic layouts

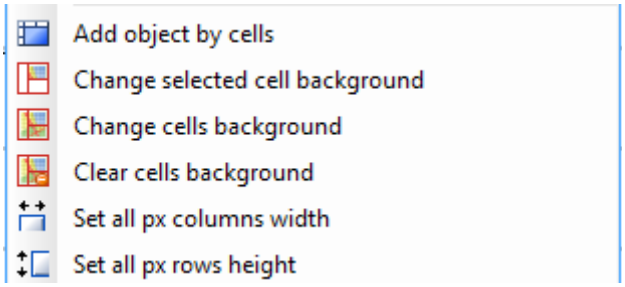


Figure 191.Additional context menu items for dynamic layouts

The functions of all items are described in the table below

Table 38. Additional context menu items for dynamic layouts.

Icon	Item	Description
	Add object by cells	Allows to insert an object into several layout cells. After selecting this item choose the cells for the object being inserted, and the select the object itself on the edit area.
	Change selected cell backgrounds (Change background for the selected cell)	Allows to change the background for the cells specified by the user.

	Change cells background	Allows to change the background for all layout cells.
	Clear cells background	Allows to clear the background of layout cells
	Set px columns width	Allows to set the width for all columns whose size is indicated in pixels
	Set px columns height	Allows to set the height for all columns whose size is indicated in pixels

The detailed description of all tools described above is given in 5.3. Working with dynamic layouts.

The additional context menu items for toggle buttons, checkboxes and radiobuttons

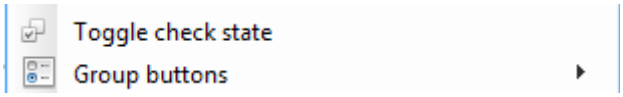


Figure 192. The specific items for toggle buttons, checkboxes and radiobuttons

When the item Toggle check state is chosen, the value of the ***Selected*** property is changed to the opposite . You can change the value of this property for several objects at once.

9. Image Editor

The Image Editor is a simple easy-to-use tool for processing images used in prototypes. It allows to process and correct images without recourse to any other special software. It allows to perform all basic operations upon images.

Launching the image editor

Add an image on the edit area; then perform one of the following operations:

- double-click on the object and select an image from the file system or from the previously used images;
- select the value for the ***Image*** property
- paste an image from the clipboard by the selecting the appropriate item in the context menu or by pressing ***Ctrl+V***.

Open the context menu and select the item ***Edit Image***. The image editor will be launched.

The editor can also be launched by selecting **Tools and frames → Open image editor** in the main menu (the icon .

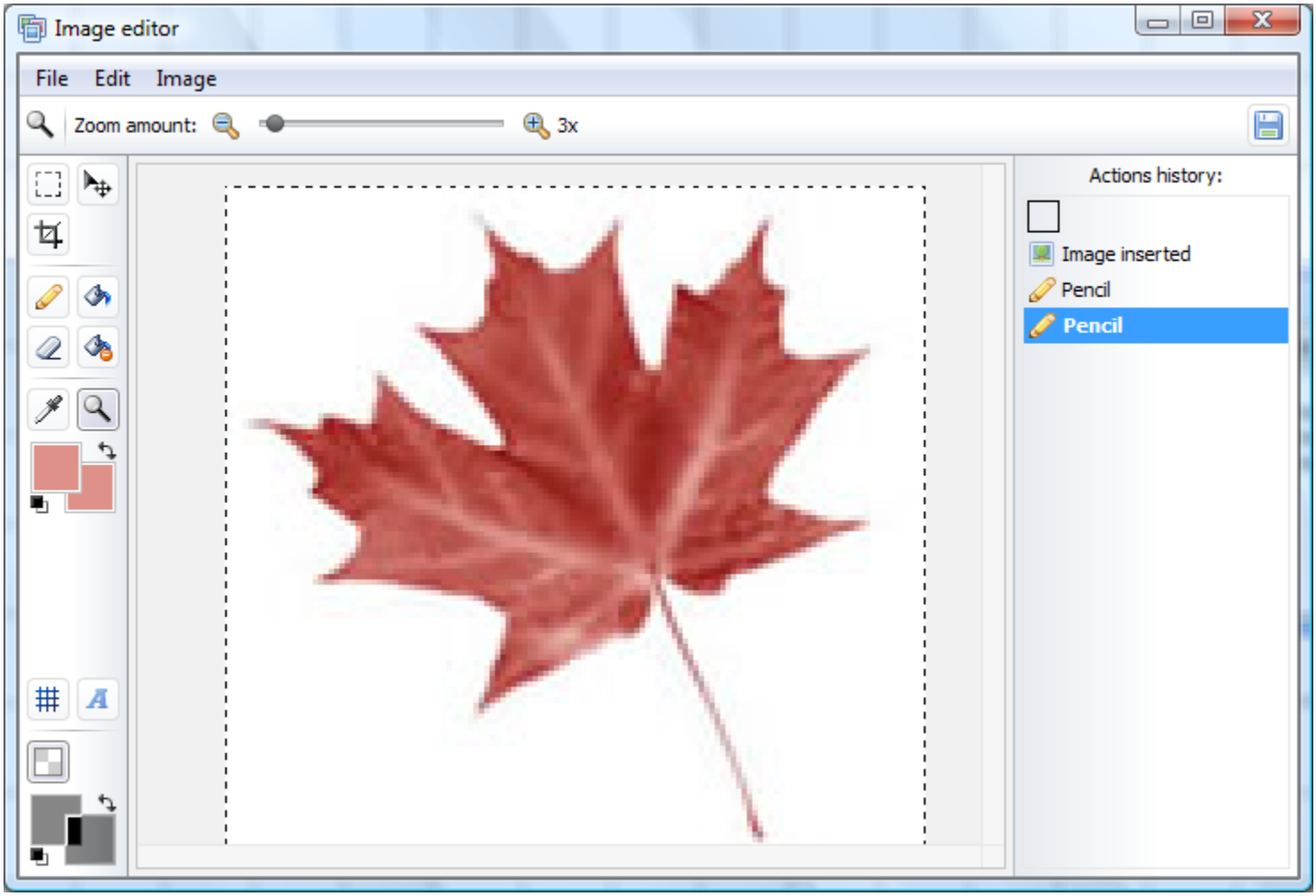


Figure 193. The Image editor

9.1. Tools of the Image Editor

The tools of the Image editor are described in the table below.

Table 39. Image Editor Tools

Icon	Item	Description
	Marquee tool	Allows to select a part of the image
	Move tool	Allows to change the position for the selected region
	Crop tool	Allows to select an are of the image and discard everything outside this area by pressing the ***Enter*** key.
	Pencil tool	Allows to draw and to change the opacity of the marker from 0% (tranparent) to 100% (totally opaque) by moving the slider.
	Paint bucket tool	Allows to paint the selected area with color. The ***Tolerance*** property allows to set the color tolerance (from 0 – filling the areas whose color is similar to that of the selected point up to 239 – filling the areas whose color is different from that of the selected point. The checkbox ***Save pixels transparency*** allows save the degree of the transparency of pixels after the work of this tool.
	Eraser tool	Allows to clear the area specified by the user.
	Eraser fill tool	Allows to paint an area with alpha-layer.

	Eyedropper tool	Allows to sample a color from the image in order to use this color further.
	Zoom tool	Allows to zoom images in and out (from 100% to 3200%). You can zoom images by either pressing the mouse buttons (the left button for zooming in and the right button for zooming out) or by using the slider. Images can also be zoomed out by pressing the left mouse button together with the ***Ctrl*** key.
	Draw pixels greed	Allows to show/hide the greed above the image.
	Do not fill background with color	Allows to switch between the alpha-layer and the selected background color.
	Paintining antialias (antialiasing)	Allows to anti-alias the lines made by the pencil and eraser tools.
	Change first color	Allows to configure the color for the background of images.

9.3. The main menu

The main menu of the image editor is shown on the figure below:

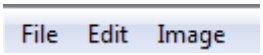


Figure 194. The main menu of the image editor

It comprises 3 items:

- File ;
- Edit ;
- Image .

9.3.1. The *File* item

The submenu for the **File** item is shown on the figure below:

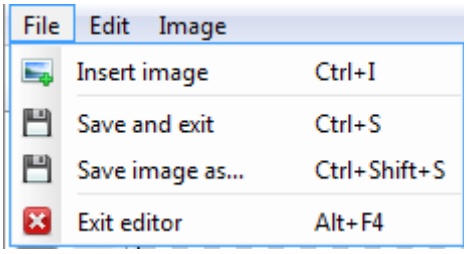


Figure 195. The File menu

It includes the following items:

- Insert image ;
- Save and exit;
- Save image as... ;
- Exit the editor .

If you select the ***Insert image*** item, the standard image selection tool will open (Cf. Figure 73. Selecting an image from the file system)

If you select **Save and exit** item, the editor will be closed but the image will be saved. It will be opened at the next launch of the editor.

If yoy select **Save image as ... ,** the standard interface for saving files should open.
Images can be saved in the following formats:

- *.jpeg;
- *.jpe;
- *.jpg;
- *.gif;
- *.png.

9.3.2. The *Edit* menu

The **Edit** menu is shown on the figure below:

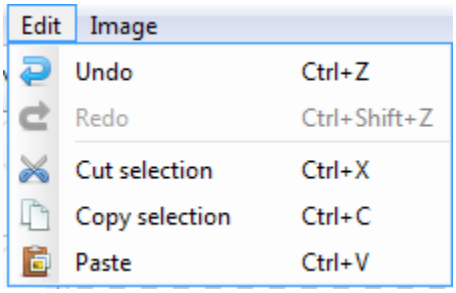


Figure196. The Edit menu of the image editor

It comprises the following items:

- Undo — cancels the last operation performed on the image;
- Redo — allows to repeat the last canceled operation;
- Cut selection — cuts the selected area and copies it to the clipboard;
- Copy selection — copies the selected area;
- Paste — pastes an image from the clipboard

9.3.3. The *Image* menu

The **Image** menu is shown on the figure below:

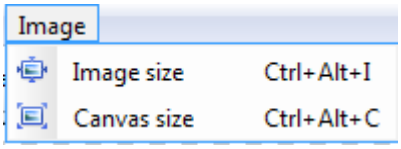


Figure 197. The Image menu

The **Image** menu contains the following items:

- Image size ;
- Canvas size .

If you select the item Image size, the window for configuring the size of the image will open:

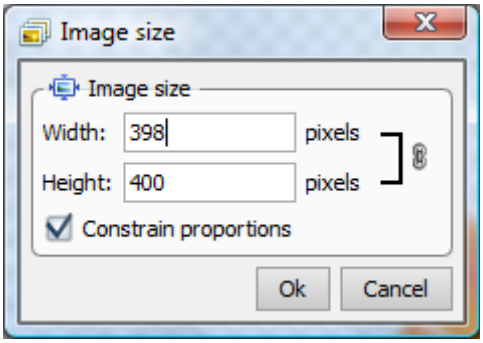


Figure 198. The image size

Enter the necessary size in pixels and press ***Ok***.

При выборе пункта **Размер области** открывается окно для установки размера области и расположения изображения: If you select the Canvas size item, the window for configuring the canvas and the location of the image should open:

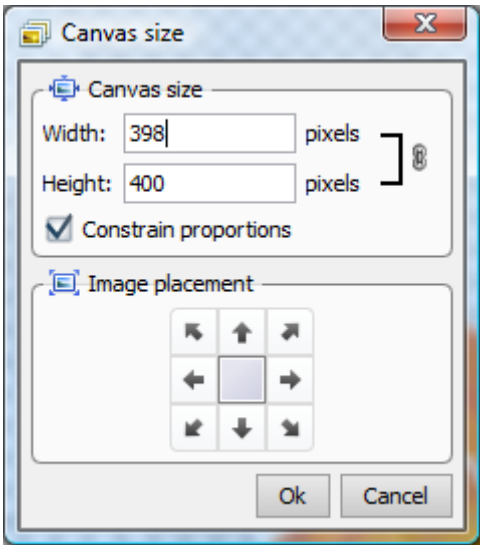


Figure 199. Canvas size

To change the size of canvas enter the width and the height in pixels.

To specify the position of the image use the arrows. There are 10 possible positions for an image on the area.

9.4. Saving images

After editing the image press the ***Save*** button. The following window will open:

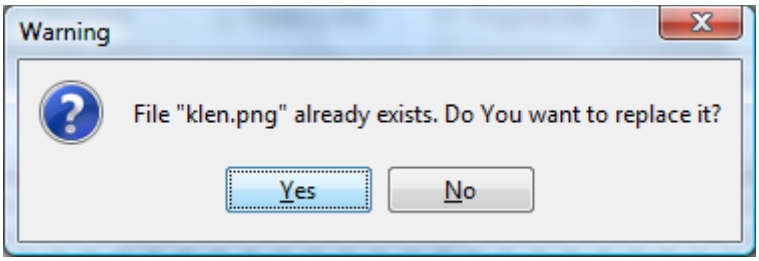


Figure 200. Saving an image

After pressing the ***Yes*** button the source image file will be modified.

If you press the ***No*** button, the new image file will be created. The source file will remain unchanged.

9.5 The History tool

With the help of the History tool you can return to any previous state of the image in the current workimg session. Each time you bring a change a new entry is added to the History.
Specify the stage you would like to return to by selecting the appropriate entry.

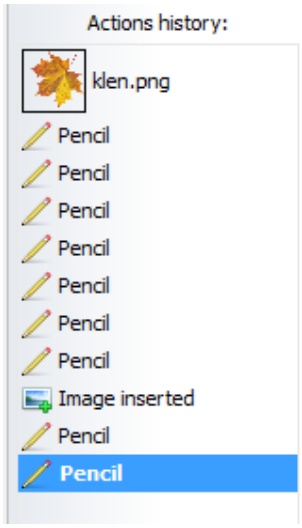


Figure 201. Image editor history tool

Operations of configuring the settings of the editor are not registered in the history for they do not modify the image.

The history is cleared after closing the editor.

Each new entry is added to the end of the list.

You can navigate the history in one of the following ways:

- by selecting an entry in the history and clicking upon it;
- by selecting the items **Undo** and **Redo** in the Edit menu ;
- by pressing ***Ctrl+Z*** and ***Ctrl+Shift+Z*** ;
- by selecting and entry in the History and pressing the arrow keys

10. Pixel Grabber

Pixel Grabber is the tool for defining the color of display dots. It can be used when working ***GUI Machine*** and separately.

To launch ***Pixel Grabber*** select **Tools and Frames→Pixel Grabber** (the icon).

To launch ***Pixel Grabber*** without launching ***GUI Machine*** press the ***Start*** button .
Select **All programs → GUI Machine → Pixel Grabber**.

You can also go to ***GUI Machine*** save directory and double-click on the file ***pixelgrabber.exe***.

With the help of the ***Pixel Grabber*** you can define the color of any display dot in the ***RGB*** format. ***Pixel Grabber*** is very simple and easy-to-use.

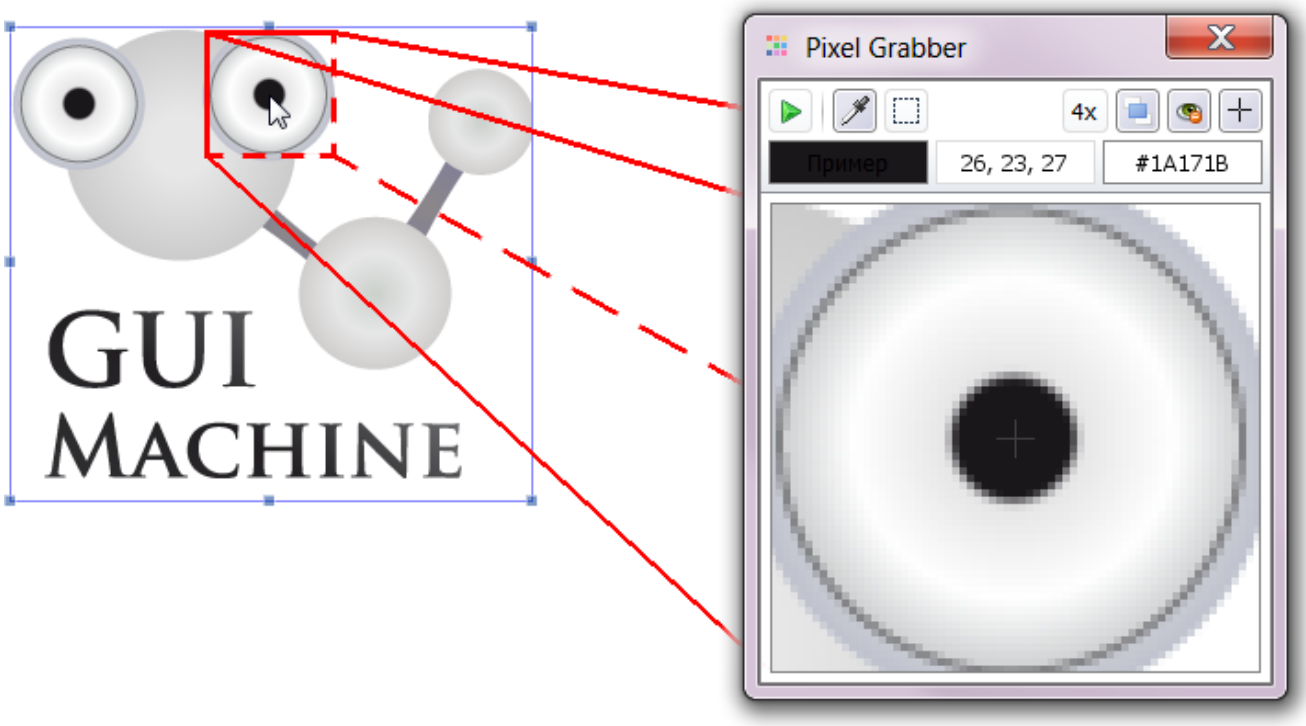
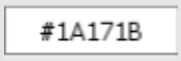
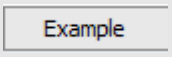


Figure 202. PixelGrabber

The ***PixelGrabber*** tool consists of the following elements:

Icon	Description
	Start/Pause recording
	Eyedropper tool
	Image selection tool
	Zooming the recorded image
	Display PixelGrabber atop all windows
	Hide preview area on the image being recorded
	Show/hide cursor on the image being recorded
	Color value
	The example of color

To define the color of a display dot:

1. Place the cursor in the necessary area.
2. Press the ***Space*** button. The ***Pixel Grabber*** will fix the image.
3. The image can be zoomed in with the help of the zooming tool (the images can be zoomed from 1x – 100% up to 64x - 6400%).
4. Select a display dot on the fixed image.
5. The color value in ***RGB*** format will be displayed in the ***Color*** field. In the neighboring field the color value will be displayed in the hexadecimal format. The example of the color is shown in the appropriate field.
6. Press the ***Space*** key or the ***Continue*** button.

11. The screenshot making tool (Print Screen)

Print Screen is an easy-to-use tool for making the screenshots of prototypes created in ***GUI Machine***.

To launch ***Print Screen*** select **Tools and Frames → Print Screen** in the main menu (the icon). The following window will open:

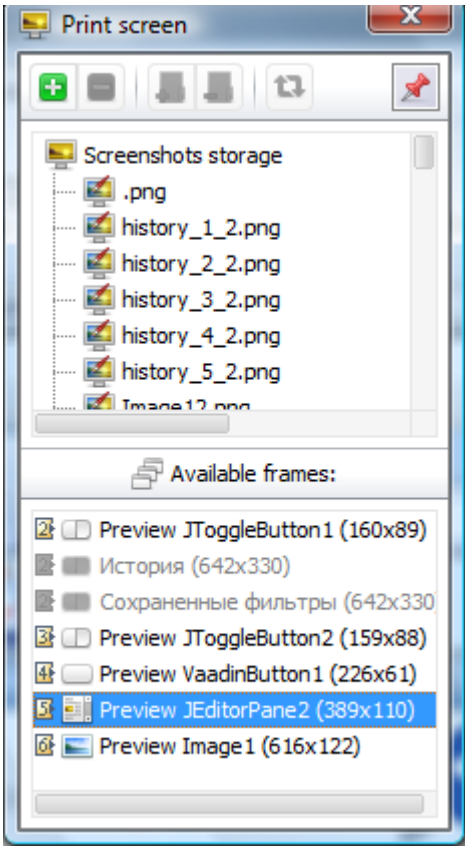


Figure 203. The Print Screen tool.

The tool will be launched automatically after starting the preview of any object/interface). Press the button on the toolbar to select/unselect this option.

The interface of the tool can be divided into three parts:

- the toolbar;
- the screenshot tree;

- the available windows.

The tool bar

The functions of the toolbar buttons are described in the table below:

Table 40. The Print Screen toolbar.

Icon	Description
	Add a new screenshot
	Remove the selected screenshot from the tree
	Create a new folder in the tree
	Remove the selected folder from the tree
	Refresh the screenshot tree
	Enable/disable launching Print Screen during the preview

The screenshot tree

It is recommended to create a tree-like structure of folders before starting to make screenshots.

Enter the name of the folder in the window shown on the figure below:

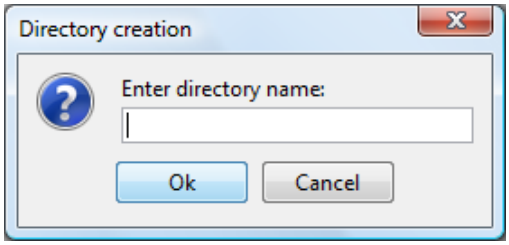


Figure 204. Entering the name of the folder

To rename folders/screenshots:

- select a folder/a screenshot and press ***F2*** ;
- double-click on the folder/screenshot

The tree is duplicated in the file system (in the folder ***Screenshots*** located in the project directory). If you modified the tree in the file system, refresh it by pressing the appropriate button so that it be displayed correctly in ***Print Screen*** main window.

Available windows

In the list of available windows the following elements are displayed:

- nterfaces being previewed;
- objects linked to the interfaces being previewed by means of actions.

NB:

- interfaces not being previewed are displayed as disabled;
- if you click on the interface being previewed, it will be displayed atop all windows;
- the screenshot of the interface being previewed is created when clicking upon it

Making a screenshot

When you press the ***Add screenshot*** button, the main window of the instrument will be hidden and the interface being previewed will be covered by the semitransparent layer:

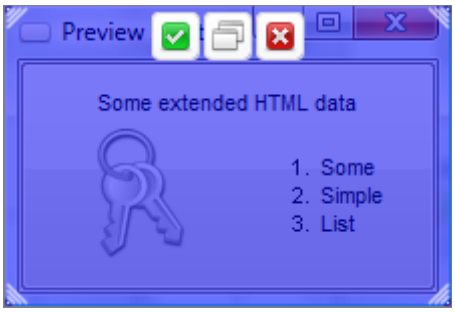


Figure 205. Making a screenshot

The layer specifies the region of the screen that will be shot. The layer can be moved by the corners and thus resized. If you right-click on the layer, it will cover the content of the window:

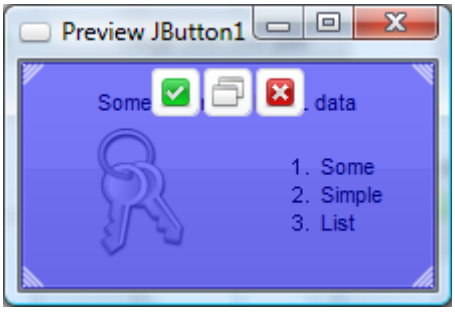


Figure 206. A screenshot of window content

Right-click on the layer to return to the previous size.

To make the screenshot the window covered by the layer press either button either the ***Print Screen*** key. Enter the name of the new screenshot in the window that should open:

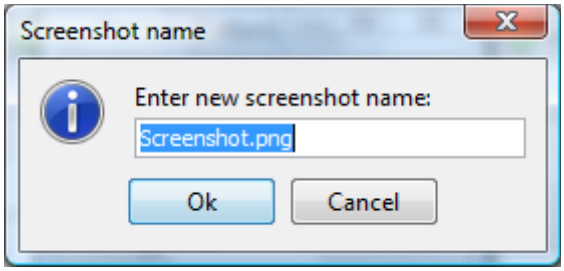


Figure 207. Entering the name of the screenshot

The window of the ***Print Screen*** tool will open. The new screenshot will be added to the folder selected before making it.
After pressing the button the making of the screenshot will be canceled. The window of the ***Print Screen*** tool will open.

If several interfaces are being previewed simultaneously and yoy want the semitransparent layer to be moved from one window to another, do the following

- press the button ;
- click on the location to which you would like to move the layer.

The layer can be moved not only on the windows being previewed, but also to the windows of the application itself. For instance, the layer can be moved to a stack of floating panels.

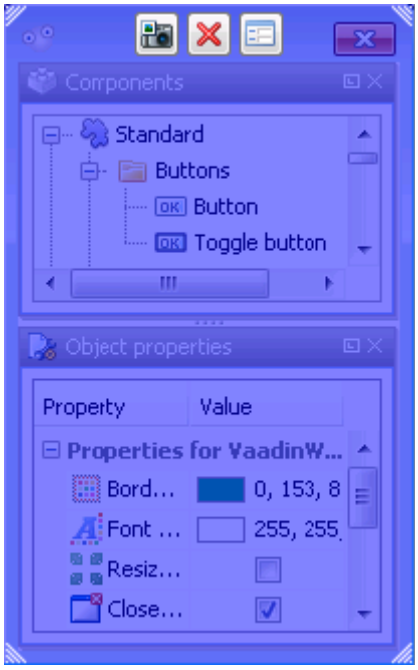


Figure 208. Covering a stack of floating panels with the semitransparent layer

The location for the saved screenshots

All screenshots you make are saved to the directory of the project, to the folder ***Screenshots***.

14. User Manual and Information

To open this manual select **Help → User Manual** in the main menu.
To see the information about the program select **Help → About program.**

Figure 209. Information about the program

In the window shown on the figure above the following information is displayed in the tab **General:**

- information about the operating system;
- the version of JVM (Java Virtual Machine);
- GUI Machine official site;
- the participants of the projects and their e-mail addresses
  - developers;
  - testers;
  - designers
- the company that owns the license

In the tab ***Agreement*** the text of the license agreement is displayed. In the tab ***Third party software*** the information about the software of other developers used in GUI Machine is presented.

15. Feedback

To contact the developers select **Help → Send us an e-mail:**

The following window will open :

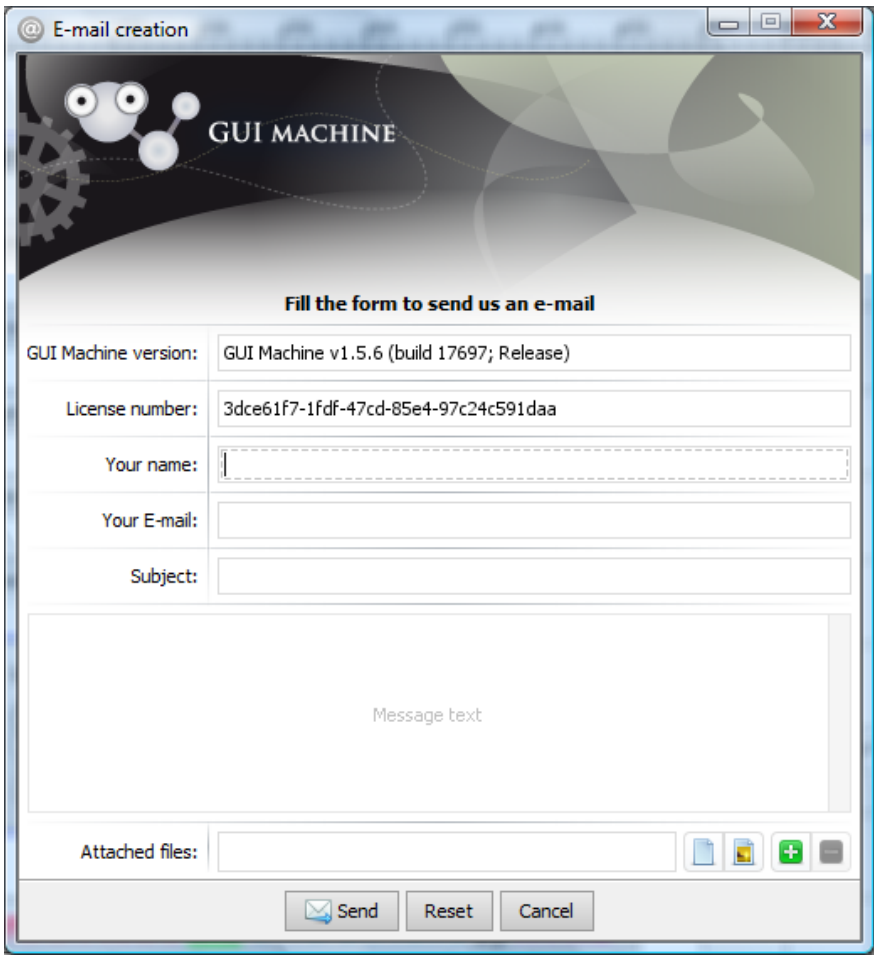


Figure 210. Sending an e-mail message

Fill in the fields **Your name, Your E-mail, Subject** and enter the text of your message in the lower field.

You can add files and images to your message

To add a file click on the button and select the file int the window that will open.

To add an image press . The window described in 4.2.2.2. Image selection tool will open.

To add one more file press .

To remove a file select it and press .

You can up to 5 files whose size does not exceed 40 Mb.

The fields **GUI Machine version** and **License number** are filled in automatically and cannot be added.
Press the ***Send*** button to send your message.

If you do not want to send the message, press the ***Cancel*** button.

To clear all fields and remove all files press the ***Reset*** button.

15. Keyboard shortcuts

The keyboard shortcuts used for the quick access to the application functions are described in the table below.

Table 41. Keyboard shortcuts

Key combination	Function
General	
Ctrl+N	Create a new project
Ctrl+O	Open a project
Ctrl+S	Save the project
Ctrl+Shift+S	Save the project as...
Ctrl+Q	Open the Image Export Tool
Ctrl+P	Print the project
Alt+F4	Close the project
Ctrl+T	Create a page
Ctrl+W	Delete a page
Ctrl+ →	Go to the next page
Ctrl+ ←	Go to the previous page
Ctrl+Z	Cancel the last operation performed
Ctrl+R	Repeat the last cancel operation
Ctrl+H	Show/hide all tools
F12	Start the preview of the window/of the interface
F2	Rename the object
Ctrl+F2	Rename the page
Shift +F4	Allows to close the windows with the Allow closing window property disabled
On the edit area	
Ctrl+C	Copy an object
Ctrl+X	Cut an object
Ctrl+V	Paste an object

Ctrl+D	Clone an object
Ctrl+A	Select all
Ctrl+Shift+D	Deselect all
Ctrl+End	Go to the right lower corner of the edit area
Ctrl+Home	Go to the left upper corner of the edit area
Ctrl+ Page Up	A screen size shift to the left
Ctrl+ Page Down	A screen size shift to the right
Shift+ →, ←, up или ***down***	Move object to the left, to the right , up or down
Alt+ →, down	Increase the width or the height of the selected object
Alt+ ←, up	Reduce the width or the heigt of the selected object
Page Up	A screen size shift up
Page Down	A screen size shift down
Delete	Remove the selected objects
→ , ← , up , down	Move the selected object to the right, to the left, up, down
Space+mouse move	Free edit area navigation
In the Image Export tool	
Ctrl+End	Go to the right lower corner of the workspace
Ctrl+Home	Go to the left upper corner of the workspace
Ctrl+ Page Up	A screen size shift to the left
Ctrl+ Page Down	A screen size shift to the right
Page Up	A screen size shift up
Page Down	A screen size shift down
A	Add a new image
S	Add a smart image
In the Print Screen tool	
Print Screen	Take a picture of the area covered by the semitransparent layer.
Enter	Take a picture of the area covered by the semitransparent layer.

16. Conclusion

GUI Machine is a tool for successful interface design

We have studied the existing GUI editing tools and united the most useful features and solutions in GUI Machine. We have also added a lot of unique features. With the help of GUI Machine it is possible to solve a wide range of problems related to GUI design.

GUI Machine has been used for designing interfaces in Alee Software company. It has proved the high quality. We hope our program will help you to solve complex problems within the shortest possible periods of time.

The conception of constant development

GUI Machine is a dynamically developing program.

Choosing GUI Machine you can be sure, that all your wishes, propositions and recommendations will be taken into consideration in the text versions. The program is constantly being improved and provided with new functions.

GUI Machine is a thoroughly supported product.

You can always contact our specialists if you have any problems concerning the work in GUI Machine. We will help you to surmount the difficulties and solve the problems.

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